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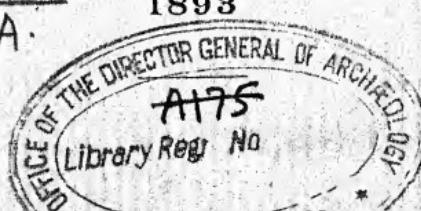
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The JOURNAL treats of the various branches of archaeology and art history—Oriental, Classic, Christian and Early Renaissance. Its original articles are predominantly classic on account of the fact that it has become the official organ of the ARCHAEOLOGICAL INSTITUTE OF AMERICA and of the AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS, and the JOURNAL will aim to further the interests for which the Institute and the School were founded. In it are published the reports on all the excavations undertaken in Greece and elsewhere by the Institute and the School, and the studies carried on independently by the Directors and members of the School. By decision of the Council of the Archaeological Institute the JOURNAL has been distributed during 1893 to all members of the Institute, and the same distribution will be made during 1894.

Beside articles the JOURNAL contains CORRESPONDENCE, BOOK NOTICES AND REVIEWS AND ARCHAEOLOGICAL NEWS. It is its aim to give notices of all important publications recently issued, sometimes written expressly for the JOURNAL, sometimes summarized from authorized reviews in other publications.

The department in which the JOURNAL stands quite alone is the RECORD OF DISCOVERIES AND INVESTIGATIONS. While all periods and all countries are represented, special attention is given to Egypt, Greece and Italy. Not merely are the results of actual excavations chronicled, but everything in the way of novel views and investigations as expressed in books and periodicals is noted. In order to secure thoroughness, more than one hundred periodicals are consulted and utilized. By these various methods, all important work is concentrated and made accessible in a convenient but scholarly form, equally suited to the specialist and to the general reader.

It has been the aim of the editors that the JOURNAL, besides giving a survey of the whole field of archaeology, should be international in character. Its success in this attempt is shown by the many noted European writers whose contributions have appeared in its pages during the past eight years. Such are: MM. Babelon, de Marsy, Maspero, Menant, Müntz and Reinach for France; MM. Dörpfeld, Furtwängler, Hirschfeld, Michaelis, Mommsen, Schreiber and Wolters for Germany; MM. Gardner, Murray, Pinches and Ramsay for England, etc.

The JOURNAL is published quarterly and forms, each year, a volume of between 500 and 600 pages royal 8vo, illustrated with colored, heliotype, phototype, half-tone and other plates and numerous figures. The yearly subscription is \$5.00 for

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Vol. I, containing 489 pages, 11 plates and 16 figures; Vol. II, containing 521 pages, 14 plates and 46 figures; Vol. III, containing 531 pages, 33 plates and 19 figures; Vol. IV, containing 550 pages, 20 plates and 19 figures; Vol. V, containing 534 pages, 13 plates and 55 figures; Vol. VI, containing 612 pages, 28 plates and 23 figures; Vol. VII, containing 578 pages, 26 plates and 8 figures; Vol. VIII, containing 631 pages, 18 plates and 26 figures—will be sent bound for \$5.50, unbound for \$5.00.

Vol. I has lately been out of print, but will be reprinted shortly in view of the increasing demand for back volumes; all who desire to complete their sets should send in their application.

CONTENTS OF VOLUME VIII, 1893.

No. 1. JANUARY—MARCH.

	PAGE,
I.—THE TEMPLE OF THE ACROPOLIS BURNT BY THE PERSIANS, By HAROLD N. FOWLER,	1
II.—NOTES ON THE SUBJECTS OF GREEK TEMPLE-SCULPTURES, By F. B. TARBELL and W. N. BATES,	18
III.—PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS.	
I.—THE RELATION OF THE ARCHAIC PEDIMENT RELIEFS FROM THE ACROPOLIS TO VASE-PAINTING, By CARLETON L. BROWNSON,	28
II.—THE FRIEZE OF THE CHORAGIC MONUMENT OF LYSIKRATES AT ATHENS, By HERBERT F. DE COU,	42
III.—DIONYSUS <i>ēp Alpyais</i> , By JOHN PICKARD,	56
CORRESPONDENCE.	
<i>Hunting della Robbia Monuments in Italy</i> , By ALLAN MARQUAND,	88
REVIEWS AND NOTICES OF BOOKS.	
M. COLLIGNON, <i>Histoire de la Sculpture Grecque</i> , HEINRICH BRUNN, <i>Griechische Gotterideale</i> ,	87 89
ARCHÆOLOGICAL NEWS.	
AFRICA (Egypt, Ethiopia, Algeria and Tunisia); ASIA (Hindustan, Thibet, China, Central Asia, Arabia, Babylonia, Persia, Syria, Armenia, Caucasus, Asia Minor), By A. L. FROTHINGHAM, Jr.,	164

No. 2. APRIL—JUNE.

I.—SOME UNPUBLISHED MONUMENTS BY LUCA DELLA ROBBIA, By ALLAN MARQUAND,	158
II.—EGYPTIAN CHRONOLOGY, By SAMUEL BERWICK,	171
III.—A SERIES OF CYPROTIC HEADS IN THE METROPOLITAN MUSEUM, By A. O. MERRIAM,	184
IV.—A TABLET REFERRING TO DUES PAID TO THE TEMPLE OF THE SUN AT SIPPARA, By THEO. G. PINCHES,	190
V.—A SEPULCHRAL INSCRIPTION FROM ATHENS, By WM. CAREY POLAND,	191
VI.—PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS.	
I.—SOME SCULPTURES FROM THE ARGIVE HERAEUM (re-printed), By CH. WALDSTEIN,	199
II.—EXCAVATIONS AT THE HERAEUM OF ARGOS, By CARLETON L. BROWNSON,	205

CORRESPONDENCE.

MONTEFALCO IN UMBRIA,	By W. M. MERCER,	226
LETTERS FROM GREECE,	By F. B. TARBELL,	230

REVIEWS AND NOTICES OF BOOKS.

ORIENTAL ARCHAEOLOGY,	239
CLASSICAL ARCHAEOLOGY,	246

ARCHAEOLOGICAL NEWS.

AFRICA (Egypt, Central Africa, Algeria); ASIA (China, Cambodia, Asia Minor); EUROPE (Greece, Italy, Sicily, France, Spain),	
By A. L. FROTHINGHAM, JR.,	251

No. 3. JULY-SEPTEMBER.

I.—NOTES OF EASTERN TRAVEL,	By JOHN P. PETERS,	325
II.—THE TOPOGRAPHY OF SPARTA,	By NICHOLAS E. CROSBY,	335
III.—THE NEATHIRED IN THE ART OF THE MYCENEAN PERIOD,	By GEORGE B. HUSSEY,	374
IV.—FASTIGIUM IN PLINY, N. H. XXXV, 152,	By HAROLD N. FOWLER,	381
V.—PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS.		
I.—EXCAVATIONS IN THE THEATRE AT SICYON IN 1891,	By M. L. EARLE,	388
II.—FURTHER EXCAVATIONS AT THE THEATRE OF SICYON IN 1891,	By C. L. BROWNSON and C. H. YOUNG,	397
III.—REPORT ON EXCAVATIONS AT SPARTA IN 1898,	By CH. WALDSTEIN and Z. M. PATON,	429
VI.—NOTES ON ROMAN ARTISTS OF THE MIDDLE AGES.	IV. THE CLOISTER OF THE LATERAN BASILICA,	437
VII.—SOME INSCRIPTIONS FROM THE ORIENT,	By A. L. FROTHINGHAM, JR.,	448
REVIEWS AND NOTICES OF BOOKS.		
CLASSICAL ARCHAEOLOGY,		456
CHRISTIAN ARCHAEOLOGY,		461
RENAISSANCE,		465

No. 4. OCTOBER-DECEMBER.

I.—A HISTORY OF THE AKROPOLIS AT ATHENS,	By WALTER MILLER,	473
--	-------------------	-----

ARCHAEOLOGICAL NEWS.

AFRICA (Egypt, Algeria, Tunisia); ASIA (Hindustan, Thibet, China, Central Asia, Western Asia, Babylonia, Assyria, Syria, Phenicia, Palestine); EUROPE (Italy),	By A. L. FROTHINGHAM, JR.,	557
--	----------------------------	-----

ALPHABETICAL TABLE.

AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS, PAPERS OF:	PAGE.
I. The relation of the archaic pediment reliefs from the Akropolis to vase painting,	28
II. The frieze of the choragic monument of Lysikrates at Athens,	42
III. Dionysus <i>ἐν Λύραις</i> ,	56
IV. A Sepulchral inscription from Athens,	191
V. Some Sculptures from the Argive Heraeum,	199
VI. Excavations at the Heraeum of Argos,	205
VII. Excavations in the Theatre at Sicyon in 1891,	388
VIII. Further Excavations at the Theatre of Sicyon in 1891,	397
IX. Report on Excavations at Sparta in 1893,	410
X. Report on Excavations between Schenochori and Koutzopodi, Argolis, in 1893,	429

ARCHÆOLOGICAL NEWS:

Abyssinia,	586
Africa (Central),	254, 586
Algeria,	113, 255, 588
Arabia,	131, 602
Armenia,	146
Asia (Central),	128
Asia (Western),	604
Asia Minor,	147, 256
Assyria,	609
Babylonia,	131, 606
Cambodia,	256
Caucasus,	146
China,	127, 256, 600
Crete,	270
Egypt,	91, 253, 557
Ethiopia,	111
France,	309
Greece,	257
Hindustan,	118, 589
Italy,	272, 620
Mongolia,	601
Palestine,	614
Persia,	184
Sicily,	293
Syria,	140, 610
Thibet,	127, 598
Tunisia,	114, 588

BATES (W. N., and F. B. Tarbell). Notes on the subjects of Greek Temple Sculptures	18
BESWICK (Samuel). Egyptian Chronology	171
BROWNSON (Carleton L.). The relation of the archaic pediment reliefs from the Akropolis to vase-painting	28
Excavations at the Heraeum of Argos, (and C. H. Young). Further Excavations at the Theatre of Sicyon in 1891,	205 307
CROSBY (Nicholas E.). The Topography of Sparta,	385
DE COU (Heribert F.). The frieze of the Choragic monument of Lysikrates at Athens,	42
EARLE (M. L.). Excavations in the Theatre at Sicyon in 1891,	388
FOWLER (Harold N.). The temple of the Akropolis burnt by the Persians, Fastigium in Pliny, N. H. xxxv, 152.	1 381
Reviews and Notices of Books:	
History of Art in Phrygia, Lydia, Caria and Lycia, by Perrot and Chipiez; and History of Art in Persia, by the same,	239
Excursions in Greece to recently explored sites, etc., by Charles Diehl,	249
FROTHINGHAM (A. L., Jr.). Notes on the Roman Artists of the Middle Ages, IV. The Cloister of the Lateran Basilica,	437
Archaeological News,	91, 251, 559
MARQUAND (Allan). Some unpublished monuments by Luca della Robbia, Correspondence:	158
Hunting Della Robbia monuments in Italy,	83
Reviews and Notices of Books:	
Histoire de la Sculpture Grecque, by Max Collignon,	87
Griechische Götterideale, by Heinrich Brunn,	89
MEADER (C. L. and Ch. Waldstein). Report on Excavations at Sparta in 1893,	410
MERCER (William). Correspondence: Montefalco in Umbria,	226
MERRIAM (A. O.). A series of Cypriote heads in the Metropolitan Museum, Some inscriptions from the Orient,	184 448
MILLER (Walter). A History of the Akropolis of Athens,	478
PATON, (J. M. and Ch. Waldstein). Report on Excavations between Schenchori and Koutzopodi, Argolis, in 1893,	429
PETERS (John P.). Notes of Eastern Travel,	825
PICKARD (John). Dionysus <i>tv Alipwta</i> ,	56
POLAND (Wm. Carey). A Sepulchral inscription from Athens,	191
TABELL (Frank B. and W. N. Bates). Notes on the subjects of Greek Temple Sculptures, Correspondence:	18
Letters from Greece,	280
WALDSTEIN (Charles). Some Sculptures from the Argive Heraeum (reprinted),	199
YOUNG (C. H. and C. L. Brownson)). Further Excavations at the Theatre of Sicyon in 1891,	897

PLATES.

	PAGES IN TEXT,
I.—The Typhon Pediment of the Akropolis,	28-41
II.—III.—The frieze of the Choragic Monument of Lysikrates,	42-55
IV.—Terracotta Medallions of Or San Michele, by Luca della Robbia,	158-170
V.— " " " " " "	
VI.—Altar of the Holy Cross, Impruneta,	
VII.—Altar of the Madonna,	
VIII.—Crucifixion Relief, " "	
IX.—Head of Hera, from the Argive Heraeum,	199-225
X.—Metope " " "	
XI.—Heads and Sima " " "	
XII.—Map of the Excavations at the Argive Heraeum,	388-409
XIII.—Hyponomos and Stage of the Theatre, Sicyon,	
XIV.—Cloister of S. John Lateran, Rome,	
XV.—Plan of the Akropolis at Athens,	487-447
XVI.—Sections of the Akropolis Excavations,	
XVII.—Herakles and the Old Man of the Sea,	
XVIII.—Figure of Athena from a pediment,	473-556

FIGURES.

	PAGE,
Bull on a Babylonian contract tablet,	190
Fac-simile of Sepulchral inscription from Athens,	192
General Sketch-plan of Sparta,	338
Sketch-plan of the Agora, Sparta,	341
" " Street called Apheta, Sparta,	345
" " Skias Street, Sparta,	349
" " Western part of Sparta,	354
" " Road from Booneata to Limnaion, Sparta,	365
" " Akropolis, Sparta,	368
Bull in a fresco at Tiryns,	374
Bull from tomb at Gizeh, Egypt,	376
Bull from Presso d'Avenues,	376
Egyptian vintage scene, Gizeh,	377
Bull on Vaphio Cup,	378
Hyponomos in the theatre at Sicyon, plans and sections,	389
End of conduit, <i>etc.</i> , in theatre, Sicyon,	394
Two stone blocks, theatre, Sicyon,	406
Section of wall AA, Sicyon,	408
Plan of circular building, Sparta,	411
Section through wall, Sparta,	415
Enlarged plan of poros blocks, Sparta,	418
Some poros blocks in detail, Sparta,	420
View of walls, Sparta,	426
Plan of Excavations between Schemochori and Koutzopodi,	430
The Pelargikon restored,	489
The serpent (Echidna) in the poros pediment, Akropolis, Athens,	497

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AMERICAN JOURNAL OF ARCHÆOLOGY.

Vol. VIII.

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No. I.

THE TEMPLE ON THE ACROPOLIS BURNT BY THE PERSIANS.

The excavations conducted by the Greek Archæological Society at Athens from 1883 to 1889 have laid bare the entire surface of the Acropolis, and shed an unexpected light upon the early history of Attic art. Many questions which once seemed unanswerable are now definitively answered, and, on the other hand, many new questions have been raised. When, in 1886, Kabbadias and Dörpfeld unearthed the foundations of a great temple close by the southern side of the Erechtheion, all questions concerning the exact site, the ground-plan, and the elevation of the great temple of Athena of the sixth century b. c. were decided once for all.¹ On these points little or nothing can be added to what has been done, and Dörpfeld's results must be accepted as final and certain.

The history of the temple presents, however, several questions, some of which seem still undecided. When was the temple built? Was it all built at one time? Was it restored after its destruction by the Persians? Did it continue in use after the erection of the Parthenon? Was it in existence in the days of Pausanias? Did Pausanias mention it in his description of the Acropolis? Conflicting answers to nearly all of these questions have appeared since the discovery of the temple. Only the first

¹ DÖRPFELD, Preliminary Report, *Mittb. Ath.*, x, p. 275; Plans and restorations, *Antike Denkmäler*, i, pls. 1, 2; Description and discussion, *Mittb. Ath.*, xi, p. 387.

question has received one and the same answer from all. The material and the technical execution of the peripteros, entablature, etc., of the temple show conclusively that this part, at least, was erected in the time of Peisistratos.² We may therefore accept so much without further discussion. Of the walls of the cella and opisthodomos nothing remains, but the foundations of this part are made of the hard blue limestone of the Acropolis, while the foundations of the outer part are of reddish-gray limestone from the Peiraieus. The foundations of the cella are also less accurately laid than those of the peripteros. These differences lead Dörpfeld to assume that the naos itself (the building contained within the peristyle) existed before the time of Peisistratos, although he does not deny the possibility that builders of one date may have employed different materials and methods, as convenience or economy dictated.³ Positive proof is not to be hoped for in the absence of the upper walls of the naos, but probability is in favor of Dörpfeld's assumption, that the naos is older than the peristyle, etc.⁴ It is further certain, that this temple was called in the sixth century B. C. τὸ Ἐκατόμπεδον (see below p. 9). So far, we have the most positive possible evidence—that of the remains of the temple itself and the inscription giving its name. The evidence regarding the subsequent history of the temple is not so simple.

Dörpfeld (*Mittb. Ath.*, XII, p. 25 ff.) arrives at the following conclusions: (1) The temple was restored after the departure of the Persians; (2) it was injured by fire B. C. 406; (3) it was repaired and continued in use; (4) it was seen and described by Pausanias I, 24.3 in a lost passage. Let us take up these points in inverse order. The passage of Pausanias reads in our texts:—
 Δέλεκται δέ μοι καὶ πρότερον (17.1), ὡς Ἀθηναῖς περισσότερον τι
 ή τοὺς ἄλλους ἐστὶ θεύα ἔστι σπουδῆς πρώτοι μὲν γὰρ Ἀθηνᾶν
 ἐπωνόμασαν Ἐργάνην, πρῶτοι δὲ ἀκάλοις Ἐρμᾶς . . . δροῦ δέ σφισιν
 ἐν τῷ ναῷ Σπουδαίων δαίμων ἔστιν. Dörpfeld marks a lacuna between Ἐρμᾶς and δροῦ, as do those editors who do not supply an

² DÖRPFELD, *Mittb. Ath.*, XI, p. 349.

³ *Mittb. Ath.*, XI, p. 345.

⁴ On the other hand, see PETERSEN, *Mittb. Ath.*, XII, p. 66.

emendation. Dörpfeld, however, thinks the gap is far greater than has been supposed, including certainly the mention and probably the full description of the temple under discussion. His reasons are in substance about as follows: (1) Pausanias has reached a point in his periegesis where he would naturally mention this temple, because he is standing beside it,⁵ and (2) the phrase ὅμοι
δέ σφισιν ἐν τῷ ναῷ Σπουδαῖων δαίμονι ἔστιν implies that a temple has just been mentioned. These are, at least, the main arguments, those deduced from the passage following the description of the Erechtheion being merely accessory.

Now, if Pausanias followed precisely the route laid down for him by Dörpfeld (*i. e.*, if he described the two rows of statues between the Propylaia and the eastern front of the Parthenon, taking first the southern and then the northern row), he would come to stand where Dörpfeld suggests. If, however, he followed some other order (*e. g.*, that suggested by Wernicke, *Mith.*, XII, p. 187), he would not be where Dörpfeld thinks. Pausanias does not say that the statues he mentions are set up in two rows.⁶ It may be that the Acropolis was so thickly peopled with statues that each side of the path was bordered with a double or triple row, or that the statues were not arranged in rows at all, and that Pausanias merely picks out from his memory (or his Polemon) a few noticeable figures with only general reference to their relative positions. Be this as it may, the assumption that Pausanias, when he mentions the Σπουδαῖων (or σπουδαῖῶν?) δαίμονι, is standing, or imagines that he stands, beside the old temple rests upon very slight foundations.

Whether Pausanias, in what he says of Ergane, the legless Hermæ, etc., is, as Wernicke (*Mith.*, XII, p. 185) would have it, merely inserting a bit of misunderstood learning, is of little moment. I am not one of those who picture to themselves

⁵ DÖRPFELD's arguments for the continued existence of the temple, without which his theory that Pausanias mentioned it must of course fall to the ground, will be discussed below. It seemed to me advisable to discuss the Pausanias question first, because, if he mentioned the temple, it must have existed, if not to his time, at least to that of Polemon or of his other (unknown) authority.

⁶ The most that can be deduced from the use of *περὶ* (o. 24. 1) is, that the statues were on both sides of the path.

Pausanias going about copying inscriptions, asking questions, and forming his own judgments, referring only occasionally to books when he wished to refresh his memory or look up some matter of history. The labors of Kalkmann, Wilamowitz, and others have shown conclusively, that a large part of Pausanias' *periegesis* is adopted from the works of previous writers, and adopted in some cases with little care by a man of no very striking intellectual ability. It is convenient to speak as if Pausanias visited all the places and saw all the things he describes, but it is certain that he does not mention all he must in that case have seen, and perhaps possible that he describes things he never can have seen. Whether Pausanias travelled about Greece and then wrote his description with the aid (largely employed) of previous works, or wrote it without travelling, makes little difference except when it is important to know the exact topographical order of objects mentioned. In any case, however, his accuracy in detail is hardly to be accepted without question, especially in his description of the Acropolis, where he has to try his prentice hand upon a material far too great for him. A useless bit of lore stupidly applied may not be an impossibility for Pausanias, but, however low our opinion of his intellect may be, he is the best we have,⁷ and must be treated accordingly. The passage about Ergane, etc., must not be simply cast aside as misunderstood lore, but neither should it be enriched by inserting the description of a temple together with the state-treasury. The passage must be explained without doing violence to the Ms. tradition. That this is possible has lately been shown by A. W. Verrall.⁸ He says: '*What Pausanias actually says is this*—: "The Athenians are specially distinguished by religious zeal. The name of Ergane was first given by them, and the name Hermae; and in the temple along with them is a Good Fortune of the Zealous"—words which are quite as apt for the meaning above explained (*i. e.*, a note on the piety of the Athenians) as those of the author often are in such cases.'

⁷ I think it is F. G. WELCKER to whom the saying is attributed: *Pausanias ist ein Schaf, aber ein Schaf mit goldenem Fleisse.*

⁸ HARRISON and VERRALL, *Mythology and Monuments of Athens*, p. 610. I am not sure that a colorless verb has not fallen out after 'Ερπας, though the assumption of a gap is not strictly necessary, as Prof. Verrall shows.

Whether we read *Σπουδαίων δαίμων* or *σπουδαιῶν Δαίμων* is, for our purposes immaterial. In either case, Verrall is right in calling attention to the connection between *ἐς τὰ θεῖα σπουδή* and the *δαίμων Σπουδαίων (σπουδαιῶν)*, a connection which is now very striking, but which is utterly lost by inserting the description of a temple. At this point, then, the temple is not mentioned by Pausanias.

But, if not at this point, perhaps elsewhere, for this also has been tried. Miss Harrison⁹ thinks the temple in question is mentioned by Pausanias, c. 27.1. He has been describing the Erechtheion, has just mentioned the old *ἄγαλμα* and the lamp of Kallimachos, which were certainly in the Erechtheion,¹⁰ and continues: *κεῖται δὲ ἐν τῷ ναῷ τῆς πολιάδος Ἐρμῆς ξύλον, κτέ.,* giving a list of anathemata, followed by the story of the miraculous growth of the sacred olive after its destruction by the Persians, and passing to the description of the Pandroseion with the words, *τῷ ναῷ δὲ τῆς Ἀθηνᾶς Πανδρόσου ναὸς συνεχῆς ἔστι.* Miss Harrison thinks that, since Athena is Polias, the *ναὸς τῆς πολιάδος* and the *ναὸς τῆς Ἀθηνᾶς* are one and the same, an opinion in which I heartily concur.¹¹ It remains to be decided whether this temple is the newly discovered old temple or the eastern cella of the Erechtheion. The passages cited by Jahn-Michaelis¹² show that the old *ἄγαλμα* bore the special appellation *πολιάς*, and we know that the old *ἄγαλμα* was in the Erechtheion. That does not, to be sure, prove that the Erechtheion was also called, in whole or in part *ναὸς τῆς πολιάδος* (or *τῆς Ἀθηνᾶς*), but it awakens suspicion to read of an ancient *ἄγαλμα* which we know was called Polias, and which was perhaps *the Polias κατ' ἔξοχήν*, and immediately after, with no introduction or explanation, to read of a temple of Polias in which that *ἄγαλμα* is not. Nothing is known of a statue in the newly discovered old temple.¹³ In the Erechtheion there

⁹ *Myth. and Mon. of Athens*, p. 508 ff.

¹⁰ *CIA.*, I. 322, § 1 with the passage of Pausanias.

¹¹ DÖRPFELD (*Mith.*, XII, p. 58 f.) thinks the *ναὸς τῆς πολιάδος* is the eastern cella of the Erechtheion, the *ναὸς τῆς Ἀθηνᾶς* the newly discovered old temple, but is opposed by Petersen (see below) and Miss Harrison.

¹² *Pausanias, Descr. Arcis Athen.*, c. 26.6.35.

¹³ For LOLLING's opposing opinion, see below.

was, then, a very ancient statue called Polias; in the temple beside the Erechtheion was no statue about which anything is known, and yet, according to Miss Harrison, the new found "old temple" is the ναὸς τῆς πολιάδος, while the πολιάς in bodily form dwells next door. That seems to me an untenable position. Again, the dog mentioned by Philochorus¹⁴ which went into the temple of Polias, and, passing into the Pandroseion, lay down (*δῦσα εἰς τὸ πανδρόσειον . . . κατέκειτο*), can hardly have gone into the temple alongside of the Erechtheion, because there was no means of passing from the cella of that temple into the opisthodomos, and in order to reach the Pandroseion the dog would have had to come out from the temple by the door by which he entered it. The fact that the dog went into this temple could have nothing to do with his progress into the Pandroseion, whereas from the eastern cella of the Erechtheion he could very well pass down through the lower apartments and reach the Pandroseion. It seems after all that when Pausanias says ναὸς τῆς πολιάδος, he means the eastern cella of the Erechtheion. But the ναὸς τῆς Ἀθηνᾶς is also the Erechtheion, for E. Petersen has already observed (*Mith.*, XII, p. 63) that, if the temple of Pandrosos was συνεχής τῷ ναῷ τῆς Ἀθηνᾶς, the temple of Athena must be identified with the Erechtheion, not with the temple beside it, for the reason that the temple of Pandrosos, situated west of the Erechtheion, cannot be συνεχής ("adjoining" in the strict sense of the word) to the old temple, which stood upon the higher level to the south. If Pausanias had wished to pass from the Erechtheion to the temple of Athena standing (?) beside it, the opening words of c. 26.6 (*Ιερὰ μὲν τῆς Αθηνᾶς ἔστιν ἡ τε ἀλλη πόλις κτέ.*) would have formed the best possible transition; but those words introduce the mention of the ancient ἄγαλμα which was in the Erechtheion. That Pausanias then, without any warning, jumps into another temple of Athena, is something of which even his detractors would hardly accuse him, and I hope I have shown that he is innocent of that offence.

Pausanias, then, does not mention the temple under discussion. Xenophon (*Hell.*, I. 6) says that, in the year 406 B. C., ὁ παλαιὸς ναὸς τῆς Ἀθηνᾶς ἐνεπρήσθη. Until recently this statement was

¹⁴ Frg. 146, JAHN-MICH., *Paus. Dicer. Arcis. Ath.*, c. 27.2.8.

supposed to apply to the Erechtheion, called "ancient temple" because it took the place of the original temple of Athena, from which the great temple (the Parthenon) was to be distinguished. Of course, the new *building* of the Erechtheion was not properly entitled to the epithet "ancient," but as a *temple* it could be called ancient, being regarded as the original temple in renewed form. If, however, the newly discovered temple was in existence alongside the Erechtheion in 406, the expression *παλαιὸς ναός* applied to the Erechtheion would be confusing, for the other temple was a much older *building* than the Erechtheion. If the temple discovered in 1886 existed in 406 B. C., it would be natural to suppose that it was referred to by Xenophon as *ὁ παλαιὸς ναός*. But this passage is not enough to prove that the temple existed in 406 B. C.

Demosthenes (xxiv, 136) speaks of a fire in the opisthodomos. This is taken by Dörpfeld (*Mitth.*, xii, p. 44) as a reference to the opisthodomos of the temple under discussion, and this fire is identified with the fire mentioned by Xenophon. But hitherto the opisthodomos in question has been supposed to be the rear part of the Parthenon, and there is no direct proof that Demosthenes and Xenophon refer to the same fire. If the temple discovered in 1886 existed in 406 B. C., it is highly probable that the passages mentioned refer to it, but the passages do not prove that it existed.

It remains for us to sift the evidence for the existence of the temple from the Persian War to 406 B. C. This has been collected by Dörpfeld¹⁵ and Lolling,¹⁶ who agree in thinking that the temple continued in existence throughout the fifth and fourth centuries, however much their views differ in other respects. But it seems to me that even thus much is not proved. I believe that, after the departure of the Persians, the Athenians partially restored the temple as soon as possible, because I do not see how they could have got along without it, inasmuch as it was used as the public treasury; but my belief, being founded upon little or no positive evidence, does not claim the force of proof.

¹⁵ *Mitth.*, xii, p. 25, ff.; xv, p. 420, ff.

¹⁶ Έκατόντεδον in the periodical *Αθηνα* 1890, p. 628, ff. The inscription there published appears also in the *Δελτίον Αρχαιολογικόν*, 1890, p. 12, and its most important part is copied, with some corrections, by Dörpfeld, xv, p. 421.

Dörpfeld (xv, p. 424) says that the Persians left the walls of the temple and the outer portico standing; that this is evident "from the present condition of the architraves, triglyphs and cornices, which are built into the Acropolis wall. These architectural members were . . . taken from the building while it still stood, and built into the northern wall of the citadel." But, if the Athenians had wished to restore the temple as quickly as possible, they would have left these members where they were. It seems, at least, rather extravagant to take them carefully away and then restore the temple without a peristyle, for the restored building would probably need at least cornices if not triglyphs or architraves; then why not repair the old ones? It appears by no means impossible that, as Lolling (p. 655) suggests, only a part of the temple was restored.¹⁷ Still more natural is the assumption, that the Athenians carried off the whole temple while they were about it. I do not, however, dare to proceed to this assumption, because I do not know where the Athenians would have kept their public monies if the entire building had been removed. Perhaps part of the peristyle was so badly injured by the Persians that it could not be repaired. At any rate, the Athenians intended (as Dörpfeld, xii, p. 202, also believes) to remove the whole building so soon as the great new temple should be completed. I think they carried out their intention.

This brings us to the discussion of the names and uses of the various parts of the older temple and of the new one (the Parthenon), the evidence for the continued existence of the older temple being based upon the occurrence of these names in inscriptions and elsewhere. As these matters have been fully discussed by Dörpfeld and Lolling, I shall accept as facts without further discussion all points which seem to me to have been definitively settled by them.

¹⁷ LOLLING does not say how much of the temple was restored; but, as he assumes the continuation of a worship connected with the building, he would seem to imply that at least part (and in that case, doubtless, the whole) of the cella was restored, and he also maintains the continued existence of the opisthodomos and the two small chambers. E. CURTIUS, *Stadtgeschichte von Athen*, p. 132, believes that only the western half of the temple was restored. DÖRPFELD, p. 425, suggests the possibility that the entire building, even the peristyle, was restored, and that the peristyle remained until the erection of the Erechtheion.

Lolling, in the article referred to above, publishes an inscription put together by him from forty-one fragments. It belongs to the last quarter of the sixth century B. C., and relates to the pre-Persian temple. Part of the inscription is too fragmentary to admit of interpretation, but the meaning of the greater part (republished by Dörpfeld) is clear at least in a general way. The *ταμίαι* are to make a list of certain objects on the Acropolis with certain exceptions. The servants of the temple, priests, etc., are to follow certain rules or be punished by fines. The *ταμίαι* are to open in person the doors of the chambers in the temple. These rules would not concern us except for the fact that the various parts of the building are mentioned. The whole building is called *τὸ Εκατόμπεδον*; parts of it are the *προνήσιον*, the *νεώς*, the *οἰκημα ταμεῖον* and *τὰ οἰκήματα*. There can be no doubt that these are respectively the eastern porch, the main cella, the large western room and the two smaller chambers of the pre-Persian temple. But most important of all is the fact that the whole building was called in the sixth century B. C. *τὸ Εκατόμπεδον*. The word *ἀπισθόδομος* does not occur in the inscription, and we cannot tell whether the western half of the building was called opisthodomos in the sixth century or not. Very likely it was.

Lolling (p. 637) says: "No one, I think, will doubt that *τὸ Εκατόμπεδον* is the *νεώς ὁ Εκατόμπεδος* often mentioned in the inscriptions of the *ταμίαι* and elsewhere." If this is correct, the eastern cella of the Parthenon cannot be the *νεώς ὁ Εκατόμπεδος*. Lolling maintains that the eastern cella of the Parthenon was the *Parthenon* proper, that the western room of the Parthenon was the opisthodomos, and that the *νεώς ὁ Εκατόμπεδος* was the pre-Persian temple. Besides the official name *Εκατόμπεδον* or *νεώς ὁ Εκατόμπεδος*, Lolling thinks the pre-Persian temple was also called *ἀρχαῖος* (*παλαιῖς*) *νεώς*.¹⁸ Dörpfeld maintains that the western cella of the Parthenon was the *Parthenon* proper, the western part of the "old temple" was the opisthodomos, and the eastern cella of the Par-

¹⁸ LOLLING (p. 643) thinks the *ἀρχαῖος νεώς* of the inscriptions of the *ταμίαι CIA, II, 758, 758* (cf. 650, 672) is the old temple of Brauronian Artemis, because in the same inscriptions the *ἐπιστάται* of Brauronian Artemis are mentioned. This seems to me insufficient reason for assuming that *ἀρχαῖος νεώς* means sometimes one temple and sometimes another.

thenon was the νεώς ὁ Ἐκατόμπεδος, leaving the question undecided whether the "old temple" was still called τὸ Ἐκατόμπεδον in the fifth century, but laying great stress upon the difference in the expressions τὸ Ἐκατόμπεδον and ὁ νεώς ὁ Ἐκατόμπεδος.¹⁹ Both Lolling and Dörpfeld agree that the πρόσνεως of the inscriptions of the fifth century is the porch of the Parthenon.²⁰

Among the objects mentioned in the lists of treasure handed over by one board of *ταμίαι* to the next (*Uebergab-Urkunden* or "transmission-lists") are parts of a statue of Athena with a base and a Νίκη and a shield ἐν τῷ Ἐκατόμπεδῳ. The material of this statue is gold and ivory. The only gold and ivory statue of Athena on the Acropolis was, so far as is known, the so-called *Parthenos* of Pheidias. Those inscriptions therefore prove that the Parthenos stood in the Hekatomedos (or Hekatompedon); that is, that the eastern cella of the Parthenon was called Ἐκατόμπεδος (*οὐ*) in the fifth century.²¹ Certainly, if there had been a second chryselephantine statue of Athena on the Acropolis, we should know of its existence.

When the Athenians built the great western room of the Parthenon, they certainly did not intend it to serve merely as a store-room for the objects described in the transmission-lists as ἐν τῷ Παρθενῶνι or ἐκ τοῦ Παρθενῶνος, these being mostly of little value or broken.²² Now the treasury of Athens was the opisthodomos, and the western room of the Parthenon was, from the moment of the completion of the building, the greatest opisthodomos in Athens. It is natural to regard this (with Lolling) as

¹⁹ *Mitth.*, xv, p. 427 ff.

²⁰ LOLLING (p. 644) thinks the expression ἐν τῷ νεῷ τῷ Ἐκατόμπεδῳ could not be used of a part of a building of which πρόσνεως and Παρθενών were parts, i. e., that a part of a temple could not be called νεώς. Yet in the inscription published by Lolling the πρόσνεως and the νεώς are mentioned in apparent contradistinction to ἄλλα τὸ Ἐκατόμπεδον. It seems, as Dörpfeld says, only natural that the νεώς should belong to the same building as the πρόσνεως.

²¹ This was shown by U. KÖHLER, *Mitth.*, v, p. 89 ff., and again by DÖRPFELD, xv, 480 ff., who quote the inscriptions. LOLLING's distinction between τὸ ἀγαλμα and τὸ χρυσοῦν ἀγαλμα cannot be maintained. cf. U. Köhler, *Sitzungsber. d. Berlin. Akad.*, 1889, p. 228.

²² A general view of these transmission-lists may be found at the back of MICHAELIS' *der Parthenon*: See also H. LEHNER, *Ueber die attischen Schatzverzeichnisse des vierten Jahrhunderts* (which Lolling cites. I have not seen it.)

the opisthodomos where the treasure was kept. This room was doubtless divided into three parts by two partitions of some sort, probably of metal,²³ running from the eastern and western wall to the nearest columns and connecting the columns. This arrangement agrees with the provision (*CIA*, I, 32) that the monies of Athena be cared for *ἐν τῷ ἐπὶ δεξιᾷ τοῦ ὀπισθόδομον*, those of the other gods *ἐν τῷ ἐπ' ἄριστερά*. Until the completion of the Parthenon, the opisthodomos of the pre-Persian temple might properly be the opisthodomos *κατ' ἔξοχήν*, but so soon as the Parthenon was finished, the new treasure-house would naturally usurp the name as well as the functions of its predecessor.

But, if the western room of the Periclean temple was the opisthodomos, where was the Παρθενών proper? It cannot be identical with the *νεώς ὁ Ἐκατόμπεδος* nor with the opisthodomos, for the three appellations occur at the same date evidently designating three different places. It would be easier to tell where the Παρθενών proper was, if we knew why it was called Παρθενών. The name was in all probability not derived from the Parthenos, but rather the statue was named from the *Parthenon* after the latter appellation had been extended to the whole building, for there is no evidence that the great statue was called Parthenos from the first. Its official title was, so far as is known, never Parthenos.²⁴ The Parthenon was not so named because it contained the Parthenos, but why it was so named we do not know. The *πρόνεος* is certainly the front porch, the *Ἐκατόμπεδος νεώς* is certainly the cella, 100 feet long, the *ὸπισθόδομος* is the rear apartment (of some building, even if I have not made it seem probable that it is the rear apartment of the Parthenon). These names carry their explanation with them. But the name Παρθενών gives us no information. It was a part of the great Periclean temple, for the name was in later times applied to the whole building, and the only part of the building not named is the western porch. It is, however, incredible that the Athenians should use this porch, so prominently exposed to the eyes of

²³ See plans of the Parthenon, for instance, the one in the plan of the Acropolis accompanying Dörpfeld's article, *Mith.*, XII, *Taf. 1*.

²⁴ DÖRPFELD, XV, p. 430.

every sight-seer, as a store-house for festival apparatus, *etc.* It is more probable that the Παρθενών proper was within the walls of the building but separated from the other parts in some way. The middle division of the western room, separated by columns and metal partitions from the treasury of Athena on the right and that of the other gods on the left, was large enough and, being directly in front of the western door, prominent enough, to deserve a name of its own. If this room was the Παρθενών proper, it is evident that a fire in the opisthodomos would cause the Παρθενών to be emptied of its contents, which would then naturally be inventoried as ἐκ τῶν Παρθενῶνος, while another list could properly be headed ἐκ τῶν ὀπισθοδόμου referring to the treasure-chambers.²⁵ The name Parthenon might then be extended first to the entire western part of the building and then to the whole edifice. This is not a *proof* that the Παρθενών was the central part of the western room of the great temple. A complete proof is impossible. All I claim is that this hypothesis fulfils all the necessary conditions.

Let us now compare the nomenclature of the pre-Persian and Periclean temples. Both were temples of Athena and more especially of Athena as guardian of the city, Athena Polias; a *pronaos* or *proneion* formed part of each; one temple was called τὸ Ἐκατόμπεδον, and the main cella of the other was called ὁ Ἐκατόμπεδος νεώς²⁶, and this name was extended to the whole building. An opisthodomos was a part of each building, and, if I was right in

²⁵ DÖRPFELD, XII, p. 203 f., argues that these headings show that the treasure was moved after the fire of 406 from the opisthodomos of the old temple into the Παρθενών proper, which was emptied of its contents to make room. But the explanation given above seems equally possible. Dörpfeld, (*Mith.*, vi, p. 233, ff.) proved conclusively that the Παρθενών was not the eastern cella of the Parthenon. His proof that it was the great western room is based primarily upon the assumption (p. 300) that *Der Name Opisthodomus bezeichnet bei allen Tempeln die dem Pronaos entsprechende Hinterhalle*. But for that assumption the Παρθενών might just as well be the western porch. Since the discovery of the pre-Persian temple, however, Dörpfeld maintains that the opisthodomos καὶ ἔξοχήν was the entire western portion of that temple, consisting of three rooms besides the porch (though he does not expressly include the porch). There is, then, no reason in the nature of things why the whole western part of the Parthenon should not be called opisthodomos.

²⁶ Or τὸ Ἐκατόμπεδον. Even after Dörpfeld's arguments, I cannot believe that any great difference in the use of the two expressions can be found.

my observations above, the new one, like the old, was called simply ὁ ὀπισθόδομος. As soon as the great Periclean temple was completed, the temple burnt by the Persians was quietly removed as had been intended from the first, the treasure was deposited in the great new opisthodomos, the old ceremonies which might still cling to the temple of the sixth century were transferred, along with the old names, to the splendid new building: the greatest temple on the Acropolis was now as before the house of the patron goddess of the land, and contained her treasure and that of her faithful worshippers, but the two temples did not exist side by side.

There was, then, no reason for differentiating between the two temples, as, for instance, by calling the one that had been removed ὁ ἀρχαῖος νεώς, because the one that had been removed was no longer in existence. That the designation ἀρχαῖος (*παλαιὸς*) νεώς is applicable to the Erechtheion has been accepted for many years and has been explained anew by Petersen.²⁷ If the temple burnt by the Persians had continued to exist alongside of the Parthenon, one might doubt whether it or the Erechtheion was meant by the expression ὁ ἀρχαῖος νεώς, but if one of the two temples was no longer in existence, the name must belong to the other. It is just possible that in Hesychios, 'Εκατόμπεδος· νεώς ἐν τῇ ἀκροπόλει τῇ Παρθένῳ κατασκευασθεὶς ὑπὸ Ἀθηναίων, μείζων τοῦ ἐμπρησθέντος ὑπὸ τῶν Περσῶν ποσὶ πεντήκοντα, the expression τοῦ ἐμπρησθέντος ὑπὸ τῶν Περσῶν (νεώ or possibly 'Εκατομπέδου νεώ) was originally chosen because the expression ἀρχαῖον νεώ (which would otherwise be very appropriate here) was regularly used to designate the Erechtheion.²⁸

²⁷ *Mitth.*, XII, p. 63 ff. Comparison of modern with ancient instances is frequently misleading, but sometimes furnishes a useful illustration. There is in Boston, Mass., a church called the *Old South* church. This became too small and too inconvenient for its congregation, so a new church was built in a distant part of the city. The intention then was to destroy the old building, in which case the new one (though new and in a different part of the city) would have been called the *Old South* church. The old building was, however, preserved, and the new one now goes by the name of the *New Old South* church, though I have also heard it called the *Old South* in spite of the continued existence of the old building. So the new building of the Erechtheion retained the name *ἀρχαῖος νεώς* which had belonged to its predecessor on the same spot.

²⁸ LOLLING (p. 638 ff.) discusses the measurements of the Parthenon and the old Hekatompedon, and finds a slight inaccuracy in the statement of Hesychios. He

At the end of his last article on this subject, Dörpfeld calls attention to the fact that "not only the lower step (*Unterstufe*) of the temple, but also a stone of the stylobate are still in their old position, and several stylobate-stones are still lying about upon the temple," and says that the whole stylobate, with the exception of the part cut away by the Erechtheion, must therefore have existed in Roman times. I do not see why quite so much is to be assumed. Even granting that we know the exact level of the surface of the Acropolis in classical times at every point, we certainly do not know all the objects—votive offerings and the like—set up in various places. Some small part of the stylobate of the ruined temple may have been used as a foundation for some group of statuary or other offering,²⁹ or a fragment of the building itself may have been left as a reminder to future generations of the devastations of the barbarians. The existence of these stones is called by Dörpfeld "a fact hitherto insufficiently considered" (*eine bisher nicht genügend beachtete Thatsache*). I cannot believe that the fact would have remained so long "insufficiently considered" by Dörpfeld and others if it were really in itself a sufficient proof that the pre-Persian temple continued in existence until the end of ancient Athens. If I am right in thinking that the temple did not exist during the last centuries of classical antiquity, it must have ceased to exist when the Parthenon was completed. Dörpfeld is certainly justified in saying³⁰ that "he who concedes the continued existence of the temple until the end of the fourth

thinks, however, (p. 641) that Hesychios would not compare the two unless they had both been standing at the same time. Possibly any inaccuracy may be accounted for by the fact that the older temple was no longer standing when the comparison was first made. Possibly, too, the name *Hekatompedon* was not originally meant to be taken quite literally, but rather, as Curtius, *Stadtgeschichte*, p. 72, seems to think, as a proud designation of a grand new building.

²⁹ Whether the present condition of the stone of the stylobate still *in situ* favors this conjecture, is for those on the spot to decide. It looks in Dörpfeld's plans (*Ant. Denkm.*, I, 1, and *Mith.*, XI, p. 387) as if it had a hole in it, such as are found in the pedestals of statues.

³⁰ *Mith.*, XV, 438. This is directed against the closing paragraph of Lolling's article, where he says: "We cannot determine exactly when this (the removal of the temple) happened, but it seems that the temple no longer existed in the times of Plutarch," etc.

century has no right to let the temple disappear in silence later" (*darf den Tempel nicht später ohne weiteres verschwinden lassen*).

In the above discussion I have purposely passed over some points because I wished to confine myself to what was necessary. So I have not reviewed in detail the passages containing the expression ἀρχαῖος (*παλαιὸς*) νεώς, as they have been sufficiently discussed by others. So, too, I have omitted all mention of the μέγαρον τὸ πρὸς ἐσπέραν τετραμένου,³¹ the παραστάδες,³² the passages in Homer,³³ Aristophanes,³⁴ and some other writers, because these references and allusions, being more or less uncertain or indefinite, may be (and have been) explained, according to the wish of the interpreter, as evidence for or against the continued existence of the temple burnt by the Persians. Those who agree with me will interpret the passages in question accordingly.

To recapitulate briefly, I hope that I have shown: (1) that Pausanias does not mention the temple excavated in 1886, and (2) that the existence of that temple during the latter part of the fifth and the fourth centuries is not proved. I believe that the temple continued to exist in some form until the completion of the Parthenon, but this belief is founded not so much upon documentary evidence as upon the consideration that the Athenians and their goddess must have had a treasure-house during the time from the Persian invasion to the completion of the Parthenon; especially after the treasure of the confederacy of Delos was moved to Athens in 454 b. c. As soon, however, as the Parthenon was completed, the temple burnt by the Persians was removed. This was before the fire of 406 b. c. The fire, therefore, injured, as has been supposed hitherto, the Erechtheion. The opisthodomos, which was injured by fire at some time not definitely ascertained (but probably not very far from the date of the fire in the Erechtheion), was the opisthodomos of the Parthenon.

It will, I hope, be observed, that I do not claim to have *proved* the non-existence of the earlier temple after the completion of the Parthenon. All I claim is that its existence is not proved. Now

³¹ HEROD, v. 77.

³² CIA, II, 733, 735, 708.

³³ Od., VII. 80 f.; Il., II. 546 ff. Mittb., XII, pp. 26, 62, 207.

³⁴ PLUT., 1191 ff. cf. Mittb., XII, pp. 69, 206.

if, as I hope I have shown, the temple is not mentioned by Pausanias,²⁵ and there is no reasonable likelihood of its silent disappearance between 435 b. c. and the time of Pausanias, the probabilities are in favor of its disappearance about 435 b. c., when it was supplanted by the Parthenon. No one, however, would welcome more gladly than I any further evidence either for or against its continued existence.

HAROLD N. FOWLER.

Exeter, New Hampshire, March, 1892.

POSTSCRIPT.—This article had already left my hands when I received the *Journal of Hellenic Studies* (xii. 2), containing an article by Mr. Penrose, *On the Ancient Hekatomedon which occupied the site of the Parthenon on the Acropolis of Athens*. Mr. Penrose contends that the old Hekatomedon was a temple of unusual length in proportion to its width, that it stood on the site of the Parthenon, and was built 100 years or more before the Persian invasion. He thinks, too, that the Doric architectural members built into the Acropolis-wall, which are referred by Dörpfeld to the archaic temple beside the Erechtheion, belonged to the building on the site of the Parthenon. He is led to these assumptions chiefly by masons' marks on some of the stones of the sub-structure of the Parthenon. He holds it "as incontrovertible that the marks have reference to the building on which they are found." The distances between these marks offer certain numerical relations which must, Mr. Penrose thinks, correspond to some of the dimensions of the building to which the marks refer. "If they had reference to the Parthenon, they would have shown a number of exact coincidences with the important sub-divisions of the temple." Of these coincidences Mr. Penrose has found but three, which he considers fortuitous. As accessory arguments he adduces the condition of the filling in to the south of the Parthenon, and the absence of

²⁵ The fact that Pausanias does not mention this temple is not a certain proof that he might not have seen it, for he fails to mention other things that certainly existed in his day. This temple, however, if it then existed, must have been in marked contrast to almost every other building in the Acropolis, and would have had special attractions for a person of Pausanias' archaeological tastes.

old architectural material in the sub-structure of the Parthenon, etc. He seems, however, to rest his case chiefly upon the masons' marks.

I cannot even attempt to discuss this new theory in detail, but would mention one or two things which seem to tell against Mr. Penrose's view. The inscription published by Lolling mentions an *οἰκημα ταμείον* and *οἰκήματα* as parts of the Hekatomedon, and such apartments evidently existed in the temple beside the Erechtheion. Mr. Penrose assumes that the temple beside the Erechtheion antedates his Hekatomedon, without regard to the fact that the use of the stone employed in the outer foundations of the archaic temple points to a much later period. The archaic temple was (at least approximately) 100 feet long, which makes it seem almost impossible that a new temple should be built on the Acropolis and called the Hundred-foot-temple (Hekatomedon). I cannot avoid attaching more importance to these considerations than to the arguments advanced by Mr. Penrose. It may be, however, that answers to these and other objections will be found.

If Mr. Penrose's theory is correct, it is evident that the old Hekatomedon must have ceased to exist before the building of the Parthenon. Whether the archaic temple excavated in 1886 continued to exist or not is, then, another matter. My main contention (that there is no good reason for assuming the continued existence through the fifth and fourth centuries b. c. of the archaic temple) is not affected by Mr. Penrose's theory, and I leave my arguments, such as they are, for the consideration alike of those who do and who do not agree with Mr. Penrose. Much of my article will appear irrelevant to the former class, but, as Mr. Penrose's views may not be at once generally accepted, it is as well to leave the discussion of previous theories as it was before the appearance of Mr. Penrose's article.

H. N. F.

NOTE.—For a discussion of Mr. Penrose's theories and conclusions, see now (Nov. 1892), Dörpfeld, *Ath. Mitt.*, xvii, pp. 158, ff.

NOTES ON THE SUBJECTS OF GREEK TEMPLE-SCULPTURES.

The following compilation is intended to present in compact form the evidence at present available on this question: How far did the Greeks choose, for the sculptured decorations of a temple, subjects connected with the principal divinity or divinities worshiped in that temple? We have omitted some examples of sculpture in very exceptional situations, *e.g.*, the sculptured drums of the sixth century and fourth century temples of Artemis at Ephesos. Acroteria have also been omitted. But we have attempted to include every Greek temple known to have had pediment-figures or sculptured metopes or frieze, and have thus, for the sake of completeness, registered some examples which are valueless for the main question. The groups from Delos, attributed on their first discovery to the pediments of the Apollon-temple, have been proved by Furtwängler to have been acroteria (*Arch. Zeitung*, 1882, p. 336 ff.) It does not appear that Lebas had any good grounds for attributing to a temple the relief found by him at Rhamnus (*Voyage archéologique, Monuments figurés*, No. 19,) and now in Munich. The frieze from Priene representing a gigantomachy was not a part of the temple there (Wolters, *Jahrbuch des deutschen arch. Instituts*, I, pp. 56, ff.) The Poseidon and Amphitrite frieze in Munich (Brunn, *Beschreibung der Glyptothek*, No. 115) has been, by some, taken for a piece of temple decoration, but is too doubtful an example to be catalogued. The statement of Pausanias (II. 11. 8) about the pediment-sculptures ($\tauὰ \ ἐν \ τοῖς \ ἀέροις$) of the Asklepieion at Titane is hopelessly inadequate and perhaps inaccurate.

The order of arrangement in the following table is roughly chronological, absolute precision being impossible. Ionic tem-

ples are designated by a prefixed asterisk, the one Corinthian by a dagger. The others are Doric, and, in the case of these, "Sculptures of the Exterior Frieze" refers, of course, to sculptured metopes.

It has not been our purpose to discuss at length the conclusions to be drawn from this evidence. Briefly, the results may be summarized as follows:

The principal sculpture (*i. e.*, sculpture of the principal pediment, or, in the absence of pediment-sculpture, the frieze in the most important situation) included the figure of the temple divinity, generally in central position, in the following numbers: *7, 8, 9, 11, 13, 16, 18, 19, 26. If 12, 14 and 32 had no pediment-sculptures, they should be added; probably also 33 and 34. In 30 the subject of the pediment-sculpture, if correctly divined by Conze, was, at any rate, closely related to the temple-divinities.

The principal sculpture apparently did not include or especially refer to the temple-divinity in the following: 20, 24, 25. Practice would seem to have become somewhat relaxed after about 425 b. c. The very singular temple of Assos, (No. 5), though earlier, should perhaps be added.

The temple-divinity was represented in the western pediments of 7, 13 and perhaps of 20, but not of that in 9, 11, 24(?) or 25.

The subjects of sculptured metopes and friezes were largely or wholly without obvious relation to the temple-divinity in the following: 1, 5, 9, 11, 12, 14, 19, 23, 29, 32.

F. B. TARBELL.

W. N. BATES.

* In counting the Aigina temple we commit deliberately a *circulus in probando*.

	PLACE.	DIVINITY.	DATE.	PEDIMENT-SCULPTURES.
1	Selinous (Temple C)	Apollon (?)	B. C. <i>ca.</i> 625	
2	Selinous		<i>ca.</i> 625	
3	Athens (Acropolis)		<i>ca.</i> 600	E.: (?) Zeus fighting Typhon; Herakles fighting serpent. W. (?): Herakles fighting Triton; Kerko-pes (?)
4	Athens (Acropolis)		<i>ca.</i> 600	E. (?): Herakles fighting Hydra. W. (?): Herakles fighting Triton.
5	Assos		VI cent. (?)	
6	Metapontum	Apollon	VI cent. (?)	Subject unknown
7	Aigina	Athena	<i>ca.</i> 530 (?)	E. & W.: Combats of Greeks and Trojans; Athena in centre.
8	Athens (Acropolis)	Athena	<i>ca.</i> 530 (?)	E. (?): Gigantomachy, including Athena (in centre ?)
9	Delphi	Apollon	VI cent. after 548	E.: Apollon, Artemis, Leto, Muses. W.: Dionysos, Thyi-ad, Setting Sun, <i>etc.</i>
10	Selinous (Temple F)		VI cent.	
11	Olympia	Zeus	<i>ca.</i> 460	E.: Preparations for chariot-race of Pelops and Oinomaos; Zeus as arbiter in centre. W.: Centauromachy; Apollon (?) in centre.

SCULPTURES OF EXTERIOR FRIEZE	OTHER SCULPTURED DECORATIONS.
1 E.: in centre, two quadrigae with unidentified figs., also Perseus slaying Medusa, Herakles carrying Kerkopes, etc. W.: Subjects unknown.	
2 Europa on bull, winged sphinx, <i>etc.</i>	
3	
4	
5 E. (and W.?): Pair of sphinxes, Centaur, wild hog, man pursuing woman, two men in combat, <i>etc.</i>	Exterior architrave: pairs of sphinxes in centre of E. & W. fronts (?), Herakles and Triton, Herakles and Centaurs, symposium, combats of animals.
6	
7 None.	
8	
9 Herakles killing Hydra, Bellerophon killing Chimæra, combats of gods and giants, <i>etc.</i>	
10 E.: Scenes from Gigantomachy.	
11	12 metopes over columns and antæ of pronaos and opisthodomos: labors of Herakles.

	PLACE.	DIVINITY.	DATE.	PEDIMENT-SCULPTURES.
12	Selinous (Temple E)	Hera (?)	B. C. <i>ca. 450 (?)</i>	
13	Athens (Acropolis)	Athena	<i>ca. 445-438</i>	E.: Birth of Athena. W.: Contest of Athena and Poseidon for At- tika.
14	Sunion	Athena	<i>ca. 435 (?)</i>	
15	Athens		<i>ca. 435 (?)</i>	E. & W.: Lost; sub- jects unknown.
*16	Athens (Acropolis)	Athena Nike	<i>ca. 432</i>	None
17	Kroton	Hera	v cent., 2d half	Undescribed.
18	Agrigentum	Zeus	v cent., before 405	
19	Bassae	Apollon	<i>ca. 425 (?)</i>	None.

	SCULPTURES OF EXTERIOR FRIEZE	OTHER SCULPTURED DECORATIONS.
12	None.	Metopes over pronaos: Herakles and Amazon, Zeus and Hera, Artemis and Aktaion, etc. Metopes over opisthodomos: Athena and Enkelados, etc.
13	E.: Gigantomachy; Athena over central intercolumniation. W.: Amazonomachy. S.: Centauromachy and seven scenes from Iliupersis. N.: Iliupersis and nine scenes from Centauromachy.	Ionic frieze around cella, pronaos and opisthodomos: Panathenaic procession.
14		Ionic frieze on four inner sides of E. vestibule, between pronaos and outer columns: Gigantomachy, including Athena (over entrance to pronaos (?)), Centauromachy, exploits of Theseus.
15	E.: Labors of Herakles. N. & S., at E. end (four metopes on each side): exploits of Theseus.	Ionic frieze over pronaos and across pteroma: battle scene. Ionic frieze over opisthodomos, Centauromachy.
*16	E.: assemblage of gods, Athena in centre. N. W. S.: battle-scenes.	
17		
18	E.: Gigantomachy. W.: Iliupersis.	
19	None.	Metopes over pronaos: Apolline and Dionysiac scenes. Interior cella-frieze: Amazonomachy, Centauromachy (Apollon and Artemis represented.)

	PLACE.	DIVINITY.	DATE.	PEDIMENT-SCULPTURES.
20	near Argos	Hera	B. C. <i>ca.</i> 420.	E.: Birth of Zeus (?) W.: Battle of Greeks and Trojans. (?)
*21	Athens (Acropolis)	Erechtheus	420-408	None.
*22	Locri Epizephyrii		v cent., latter part	E.: Lost. W.: Subject unknown, including Dioscuri (?)
*23	Samothrace	Cabiri	<i>ca.</i> 400	E.: Lost.
24	Tegea	Athena Alea	IV cent., first half	E.: Calydonian boar-hunt (no divinity represented.) W.: Contest of Telephos and Achilles.
25	Epidauros	Asklepios	<i>ca.</i> 375 (?)	E.: Centauromachy. W.: Amazonomachy.
26	Thebes	Herakles	<i>ca.</i> 370 (?)	Labors of Herakles.
*27	Ephesos	Artemis	<i>ca.</i> 330	
*28	Troad	Apollon	III cent.	
*29	Magnesia	Smintheus	III cent.	
30	Samothrace	Artemis Cabiri	III cent. III cent.	N.: Demeter seeking Persephone (?)
†31	Lagina	Hekate		
32	Ilium Novum	Athena (?)	II cent. (?)	
*33	Teos	Dionysos	Roman times	
*34	Knidos	Dionysos (?)	Roman times	

SCULPTURES OF EXTERIOR FRIEZE	OTHER SCULPTURED DECORATIONS.
20 E.: Gigantomachy (?) W.: Iliupersis (?)	
*21 Uninterpreted.	
*22	
*23 Dancing women.	
24	
25	
26	
*27 Mythological scenes.	
*28 Scenes of combat.	
*29 Amazonomachy.	
30	
†31 Subjects unknown.	
32 Helios in chariot, Athena and Enkelados, other scenes of combat.	
*33 Dionysiac procession.	
*34 Dionysiac scenes, etc.	

1. BENNDORF, *Metopen von Selinunt*, pp. 38-50; SERRADIFALCO, *Antichità di Sicilia*, II, p. 16.
2. *Mnumen Antichi*, I, p. 950 ff.
3. BRÜCKNER, *Athenische Mittheilungen*, 1889, pp. 67 ff.; 1890, pp. 84 ff.
4. MEIER, *Ath. Mittb.*, 1885, pp. 287 ff., 322 ff.
5. CLARAC, *Musée de Sculpture*, II, pp. 1149 ff.; CLARKE, *Report on Investigations at Assos*, pp. 105-121. This temple has been usually assigned to the sixth century. Mr. Clarke brings it down to about the middle of the fifth. His arguments have not yet been published in full.
6. LACAVA, *Topografia e Storia di Metaponto*, p. 81.
7. Since the inscription which was at one time supposed to fix the divinity of this temple has been disposed of (by LOLLING, in *Arch. Zeitung*, XXXI (1874), p. 58, the designation given above rests solely on the prominence given to Athena in the pediment-sculptures. As for the date, the building is assigned by DÖRPFELD to the sixth cent. (*Olympia, Textband* II, p. 20).⁷ The pediment-sculptures might be later, but are now confidently carried by STUDNICZKA (*Ath. Mittb.*, 1886, pp. 197-8) some decades back in the sixth century.
8. STUDNICZKA, *Ath. Mittb.*, 1886, pp. 185, ff.; MAYER, *Giganten und Titanen*, pp. 290-91. According to DÖRPFELD, the metopes of this temple, or some of them, may have been sculptured.
9. PAUS., X. 19. 4. EURIP., *Ion*, 184 ff. The temple seems to have been long in building. If AISCH. *contra Cleo.*, § 116, is to be believed, the dedication did not take place till after 479. According to Pausanias, the pediment-sculptures were the work of Praxias and Androstenes. These sculptures have been generally supposed to have been executed about 424, but may have been considerably earlier, so far as Pausanias goes to show. The excavations now in progress will, it is to be hoped, clear up the whole subject.
10. BENNDORF, *op. cit.*, pp. 50-52.
11. PAUS., V., 10. 6-9. For the date, see DÖRPFELD, *Olympia, Textband* II, pp. 19 ff. FLASCH, in Baumeister's *Denkmäler*, pp. 1098-1100.
12. BENNDORF, *op. cit.* pp. 53-60. The attribution of the temple to Hera rests on the dubious ground of a single votive inscription to Hera found within the cella; *op. cit.*, p. 34.
13. PAUS., I. 24. 5; MICHAELIS, *Der Parthenon*, pp. 107-265; ROBERT, *Arch. Zeit*, 1884, pp. 47-58; MAYER, *Giganten und Titanen*, pp. 366-370.
14. FABRICIUS, *Ath. Mittb.*, 1884, 338 ff.; for the date, DÖRPFELD, *ibid.* p. 336.
15. The so-called Theseion.
16. Ross, *Temple der Nike Apteros*, pls. 11-12; FRIEDERICHSEN, *Bausteine*, (ed. Wolters) Nos. 747-760. On the date, see WOLTERS, *Bonner Studien Reinhard Kekulé gewidmet*, pp. 92-101.
17. *Eighth Annual Report of the Archaeological Institute of America*, pp. 42 ff.
18. DIOD. SIC., XIII. 82. It is disputed whether Diodorus speaks of pediment-sculptures or metopes; see PETERSEN, *Kunst des Phidias*, p. 208, Note 4. Nothing can be made of the existing fragments; published by SERRADIFALCO, *Antichità di Sicilia*, III, pl. 25.
19. COCKERELL, *Temples of Aegina and Bassae*, pp. 49-50, 52.
20. PAUS., II. 17. 3. The distribution of subjects given above is that proposed by Dr. Waldstein, in the light of the discoveries made on the site of the Heraion

- under his direction in the spring of 1892. See Thirteenth Annual Report of the Archaeological Institute of America, p. 64.
21. FRIEDRICH, *Bausteine* (ed. Wolters) Nos. 812-820. On the date see MICHAELIS, *Ath. Mitt.*, 1889, pp. 349 ff.
 22. *Notizie degli Scavi*, 1890, pp. 255-57; PETERSEN, *Bull. dell' Istituto*, 1890, pp. 201-27.
 23. CONZE, etc., *Arch. Untersuchungen auf Samothrake*, II, pp. 13-14, 23-25.
 24. PAUS., VIII. 45. 4-7; TREU, *Ath. Mitt.*, 1881, pp. 393-423; WEIL, in *Baumeister's Denkmäler*, 1666-69.
 25. Ἐφημερὶς Ἀρχαιολογικῆ, 1884, pp. 49-60; 1885, pp. 41-44. For the date see FOUCART, *Bull. de corr. hellén.*, 1890, pp. 589-92.
 26. PAUS., IX. 11. 4. The date given above conforms to the view of BRUNN, *Sitzungsber. d. Münch. Akademie*, 1880, pp. 435 ff.
 27. WOOD, *Discoveries at Ephesus*, p. 271.
 28. *Antiquities of Ionia*, IV, p. 46. Mr. Pullan is inclined to date the temple after Alexander; Prof. Middleton somewhat earlier (*Smith's, Dict. of Antiq.*, 3d ed., II, p. 785).
 29. CLARAC, *Musée de Sculpture*, II, pp. 1193-1233; pls. 117 C-J. Additional pieces of the frieze have recently been found in the course of excavations conducted by the German Archaeological Institute. The date given above for the building is that suggested by DÖRPFELD, *Ath. Mitt.*, 1891, pp. 264-5. Most of the sculpture is generally regarded as of much later date.
 30. CONZE, etc., *Untersuchungen auf Samothrake*, I, pp. 24-7, 43-4.
 31. NEWTON, *Discoveries at Halicarnassus, etc.*, II, pp. 554-67.
 32. MAYER, *Giganten und Titanen*, pp. 370-71.
 33. *Antiquities of Ionia*, IV, pp. 38-9.
 34. NEWTON, *Discoveries at Halicarnassus, etc.*, II, pp. 449-50, 633.

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
STUDIES AT ATHENS.

THE RELATION OF THE ARCHAIC PEDIMENT
RELIEFS FROM THE ACROPOLIS TO
VASE-PAINTING.

[PLATE I.]

From one point of view it is a misfortune in the study of archæology that, with the progress of excavation, fresh discoveries are continually being made. If only the evidence of the facts were all in, the case might be summed up and a final judgment pronounced on points in dispute. As it is, the ablest scholar must feel cautious about expressing a decided opinion; for the whole fabric of his argument may be overturned any day by the unearthing of a fragment of pottery or a sculptured head. Years ago, it was easy to demonstrate the absurdity of any theory of polychrome decoration. The few who dared to believe that the Greek temple was not in every part as white as the original marble subjected themselves to the pitying scorn of their fellows. Only the discoveries of recent years have brought proof too positive to be gainsaid. The process of unlearning and throwing over old and cherished notions is always hard; perhaps it has been especially so in archæology.

The thorough investigation of the soil and rock of the Acropolis lately finished by the Greek Government has brought to light so much that is new and strange that definite explanations and conclusions are still far away. The pediment-reliefs in poros which now occupy the second and third rooms of the Acropolis Museum have already been somewhat fully treated, especially in their architectural bearings. Dr. Brückner of the German Institute

has written a full monograph on the subject,¹ and it has also been fully treated by Lechat in the *Revue Archéologique*.² Shorter papers have appeared in the *Mittheilungen* by Studniezka³ and P. J. Meier.⁴ Dr. Waldstein in a recent peripatetic lecture suggested a new point of view in the connection between these reliefs and Greek vase-paintings. It is this suggestion that I have tried to follow out.

The groups in question are too well known to need a detailed description here. The first,⁵ in a fairly good state of preservation, represents Herakles in his conflict with the Hydra, and at the left Iolaos, his charioteer, as a spectator. Corresponding to this, is the second group,⁶ with Herakles overpowering the Triton; but the whole of this is so damaged that it is scarcely recognizable. Then there are two larger pediments in much higher relief, the one⁷ repeating the scene of Herakles and the Triton, the other⁸ representing the three-headed Typhon in conflict, as supposed, with Zeus. All four of these groups have been reconstructed from a great number of fragments. Many more pieces which are to be seen in these two rooms of the Museum surely belonged to the original works, though their relations and position cannot be determined. The circumstances of their discovery between the south supporting-wall of the Parthenon and Kimon's inner Acropolis wall make it certain that we are dealing with pre-Persian art. It is quite as certain, in spite of the fragmentary condition of the remains, that they were pedimental compositions and the earliest of the kind yet known.

The first question which presents itself in the present consideration is: Why should these pedimental groups follow vase paintings? We might say that in vases we have practically the first products of Greek art; and further we might show resemblances, more or less material, between these archaic reliefs and vase pictures. But the proof of any connection between the two would still be wanting. Here the discoveries made by the Germans at

¹ *Mitth. deutsch. arch. Inst. Athen.*, XIV, p. 87; XV, p. 84. ² *Rev. Arch.*, XVII, p. 304; XVIII, pp. 12, 187. ³ *Mitth. Athen.*, XI, p. 61. ⁴ X, pp. 287, 322. Cf. Studniczka, *Jahrbuch deutsch. arch. Inst.*, I, p. 87; Purgold, 'Εφημερίς Ἀρχαιολογική, 1884, p. 147, 1885, p. 234. ⁵ *Mitth. Athen.*, X, cut opposite p. 237; 'Εφημερίς, 1884, πλίνξ 7.

⁶ *Mitth. Athen.*, XI, Taf. II. ⁷ *Idem*, XV, Taf. II. ⁸ *Idem*, XIV, Taf. II, III.

Olympia and confirmed by later researches in Sicily and Magna Graecia, are of the utmost importance.⁹ In the Byzantine west wall at Olympia were found great numbers of painted terracotta plates¹⁰ which examination proved to have covered the cornices of the Geloan Treasury. They were fastened to the stone by iron nails, the distance between the nail-holes in terracottas and cornice blocks corresponding exactly. The fact that the stone, where covered, was only roughly worked made the connection still more sure. These plates were used on the cornice of the long side, and bounded the pediment space above and below. The corresponding cyma was of the same material and similarly decorated.

It seems surprising that such a terracotta sheathing should be applied on a structure of stone. For a wooden building, on the other hand, it would be altogether natural. It was possible to protect wooden columns, architraves and triglyphs from the weather by means of a wide cornice. But the cornice itself could not but be exposed, and so this means of protection was devised. Of course no visible proof of all this is at hand in the shape of wooden temples yet remaining. But Dr. Dörpfeld's demonstration¹¹ removes all possible doubt. Pausanias¹² tells us that in the Heraion at Olympia there was still preserved in his day an old wooden column. Now from the same temple no trace of architrave, triglyph or cornice has been found; a fact that is true of no other building in Olympia and seems to make it certain that here wood never was replaced by stone. When temples came to be built of stone, it seems that this plan of terracotta covering was retained for a time, partly from habit, partly because of its fine decorative effect. But it was soon found that marble was capable of withstanding the wear of weather and that the ornament could be applied to it directly by painting.

⁹ I follow closely Dr. Dörpfeld's account and explanation of these discoveries in *Ausgrabungen zu Olympia*, v, 30 seq. See also *Programm zum Winckelmannsfeste*, Berlin, 1881. *Ueber die Verwendung Terracotten*, by Messrs. DÖRPFELD, GRÄBER, BORRMANN, and SIEBOLD.

¹⁰ Reproduced in *Ausgrabungen zu Olympia*, v, Taf. XXXIV. BAUMEISTER, *Denkmäler des klassischen Altertums*, Taf. XLV. RAYET et COLLIGNON, *Histoire de la Céramique Grecque*, pl. xv.

¹¹ *Historische und philologische Aufsätze*, Ernst Curtius gewidmet. Berlin, 1884, p. 137 seq. ¹² v, 20, 6.

In order to carry the investigation a step further Messrs. Dörpfeld, Gräber, Borrmann and Siebold undertook a journey to Gela and the neighboring cities of Sicily and Magna Graecia.¹³ The results of this journey were most satisfactory. Not only in Gela, but in Syracuse, Selinous, Akrai, Kroton, Metapontum and Paestum, precisely similar terracottas were found to have been employed in the same way. Furthermore just such cyma pieces have been discovered belonging to other structures in Olympia and amid the pre-Persian ruins on the Acropolis of Athens. It is not yet proven that this method of decoration was universal or even widespread in Greece; but of course the fragile nature of terracotta and the fact that it was employed only in the oldest structures, would make discoveries rare.

Another important argument is furnished by the certain use of terracotta plates as acroteria. Pausanias¹⁴ mentions such acroteria on the Stoa Basileios on the agora of Athens. Pliny¹⁵ says that such works existed down to his day, and speaks of their great antiquity. Fortunately a notable example has been preserved in the acroterium of the gable of the Heraion at Olympia,¹⁶ a great disk of clay over seven feet in diameter. It forms a part, says Dr. Dörpfeld, of the oldest artistic roof construction that has remained to us from Greek antiquity. That is, the original material of the acroteria was the same used in the whole covering of the roof, namely terracotta. The gargoyles also, which later were always of stone, were originally of terracotta. Further we find reliefs in terracotta pierced with nail-holes and evidently intended for the covering of various wooden objects; sometimes, it is safe to say, for wooden sarcophagi.¹⁷ Here appears clearly the connection that these works may have had with the later reliefs in marble.

To make now a definite application, it is evident that the connection between vase-paintings and painted terracottas must from the nature of the case be a very close one. But when these terracottas are found to reproduce throughout the exact designs and figures of vase-paintings, the line between the two fades away. All the most familiar ornaments of vase technic recur again and

¹³ Cf. *supra*, *Programm zum Winckelmannsfeste*.

¹⁴ I, 8, 1.

¹⁵ *His. Nat.*, xxxv, 158.

¹⁶ *Ausgrabungen zu Olympia*, V, 85 and *Taf. XXXIV*.

again, maeanders, palmettes, lotuses, the scale and lattice-work patterns, the bar-and-tooth ornament, besides spirals of all descriptions. In execution, also, the parallel is quite as close. In the great acroterium of the Heraion, for example, the surface was first covered with a dark varnish-like coating on which the drawing was incised down to the original clay. Then the outlines were filled in black, red and white. Here the bearing becomes clear of an incidental remark of Pausanias in his description of Olympia. He says (v. 10.): *ἐν δὲ Ὀλυμπίᾳ (of the Zeus temple) λέβης ἐπίχρυσος ἐπὶ ἑκάστῳ τοῦ δρόφου τῷ πέρατι ἐπίκειται.* That is originally acroteria were only vases set up at the apex and on the end of the gable. Naturally enough the later terracottas would keep close to the old tradition.

It is interesting also to find relief-work in terracotta as well as painting on a plane surface. An example where color and relief thus unite, which comes from a temple in Caere,¹⁷ might very well have been copied from a vase design. It represents a female face in relief, as occurs so often in Greek pottery, surrounded by an ornament of lotus, maeander and palmette. Such a raised surface is far from unusual; and we seem to find here an intermediate stage between painting and sculpture. The step is indeed a slight one. A terracotta figurine¹⁸ from Tarentum helps to make the connection complete. It is moulded fully in the round, but by way of adornment, in close agreement with the tradition of vase-painting, the head is wreathed with rosettes and crowned by a single palmette. So these smaller covering plates just spoken of, which were devoted to minor uses, recall continually not only the identical manner of representation but the identical scenes of vase paintings,—such favorite subjects, to cite only one example, as the meeting of Agamemnon's children at his tomb.

From this point of view, it does not seem impossible that pedimental groups might have fallen under the influence of vase technic. The whole architectural adornment of the oldest temple was of pottery. It covered the cornice of the sides, completely bounded the pedimental space, above and below, and finally

¹⁷ *Arch. Zeitung*, xxix, 1872, *Taf. 41*; RAYET et COLLIGNON, *Hist. Céram. Grecque*, fig. 148. ¹⁸ *Arch. Zeitung*, 1882, *Taf. 13*.

rowned the whole structure in the acroteria. It would surely be strange if the pedimental group, framed in this way by vase designs, were in no way influenced by them. The painted decoration of these terracottas is that of the bounding friezes in vase-pictures. The vase-painter employs them to frame and set off the central scene. Might not the same end have been served by the terracottas on the temple, with reference to the scene within the tympanum? We must remember, also, that at this early time the sculptor's art was in its infancy while painting and the ceramic art had reached a considerable development. Even if all analogy did not lead the other way, an artist would shrink from trying to fill up a pediment with statues in the round. The most natural method was also the easiest for him.

On the question of the original character of the pedimental group, the Heraion at Olympia, probably the oldest Greek columnar structure known, furnishes important light. Pausanias says nothing whatever of any pedimental figures. Of course his silence does not prove that there were none; but with all the finds of acroteria, terracottas and the like, no trace of any such sculptures was discovered. The inference seems certain that the pedimental decoration, if present at all, was either of wood or of terracotta, or was merely painted on a smooth surface. The weight of authority inclines to the last view. It is held that, if artists had become accustomed to carving pedimental groups in wood, the first examples that we have in stone would not show so great inability to deal with the conditions of pedimental composition. If ever the tympanum was simply painted or filled with a group in terracotta, it is easy to see why the fashion died and why consequently we can bring forward no direct proof to-day. It was simply that only figures in the round can satisfy the requirements of a pedimental composition. The strong shadows thrown by the cornice, the distance from the spectator, and the height, must combine to confuse the lines of a scene painted on a plane surface, or even of a low relief. So soon as this was discovered and so soon as the art of sculpture found itself able to supply the want, a new period in pedimental decoration began.

Literary evidence to support this theory of the origin of pediment sculpture is not lacking. Pliny says in his *Natural History*

(xxxv. 156.): *Laudat (Varro) et Pasitelen qui plasticen matrem caelaturae et statuariae sculpturaeque dixit et cum esset in omnibus his summus nihil unquam fecit antequam finxit.* Also (xxxiv. 35.): *Similitudines exprimendi quae prima fuerit origo, in ea quam plasticen Graeci vocant dici convenientius erit, etenim prior quam statuaria fuit.* In both these cases the meaning of “plasticen” is clearly working, that is, moulding, in clay. Pliny, again (xxxv. 152.), tells us of the Corinthian Butades: *Butadis inventum est rubricam addere aut ex rubra creta fingere, primusque personas tegularum extremis imbricibus inposuit, quae inter initia prostopa vocavit, postea idem ectypa fecit. hinc et fastigia templorum orta.* The phrase *hinc et fastigia templorum orta*, has been bracketed by some editors because they could not believe the fact which it stated. *Fastigia* may from the whole connection and the Latin mean “pediments.” This is quite in accord with the famous passage in Pindar,¹⁹ attributing to the Corinthians the invention of pedimental composition. Here then we have stated approximately the conclusion which seems at least probable on other grounds, namely, that the tympanum of the pediment was originally filled with a group in terracotta, beyond doubt painted and in low relief.

But if we assume that the pedimental group could have originated in this way, we must be prepared to explain the course of its development up to the pediments of Aegina and the Parthenon, in which we find an entirely different principle, namely, the filling of these tympana with figures in the round. It is maintained by some scholars, notably by Koepp,²⁰ that no connection can be established between high relief and low relief, much less between statues entirely in the round and low relief. High relief follows all the principles of sculpture, while low relief may almost be considered as a branch of the painter’s art. But this view seems opposed to the evidence of the facts. For there still exists a continuous series of pedimental groups, first in low relief then in high relief, and finally standing altogether free from the background, and becoming sculpture in the round. Examples in low relief are the Hydra pediment from the Acropolis and the pediment of the Megarian Treasury at Olympia, which, on artistic

¹⁹ *Olymp.*, XIII, 21.

²⁰ *Jahrbuch deutschen archäol. Instituts*, II, 118.

grounds, can be set down as the two earliest now in existence. Then follow, in order of time and development, the Triton and Typhon pediments, in high relief, from the Acropolis; and after these the idea of relief is lost, and the pediment becomes merely a space destined to be adorned with statuary. Can we reasonably believe that the Hydra and Triton pediments, standing side by side on the Acropolis, so close to each other in time and in technic, owe their origin to entirely different motives, merely for the reason that the figures of one stand further out from the background than those of the other? Is it not easier to suppose that the higher reliefs, as they follow the older low reliefs in time, are developed from them, than to assume that just at the dividing-line a new principle came into operation?

It is a commonplace to say that sculpture in relief is only one branch of painting. Conze²¹ publishes a sepulchral monument which seems to him to mark the first stage of growth. The surface of the figure and that of the surrounding ground remain the same; they are separated only by a shallow incised line. Conze says of it; "The tracing of the outline is no more than, and is in fact exactly the same as, the tracing employed by the Greek vase-painter when he outlined his figure with a brush full of black paint before he filled in with black the ground about it." The next step naturally is to cut away the surface outside and beyond the figures; the representation is still a picture except in the clearer marking of the bounding-line. The entire further growth and development of the Greek relief is in the direction of rounding these lines and of detaching the relief more and more from the back surface. This primitive picturesque method of treatment is found as well in high relief as in low. How then can the process of development be different for the two? I quote from Friedrichs-Wolters²² on the metopes of the temple of Apollon at Selinus, which are distinctly in high relief: "The relief of these works stands very near to the origin of relief-style. The surface of the figures is kept flat throughout, although the effort to represent them in their full roundness is not to be

²¹ *Das Relief bei den Griechen. Sitzungs-Berichte der Berliner Akademie*, 1882, 567.

²² *Gipsabgüsse antiker Bilderwerke*, Nos. 149-151.

mistaken. Only later were relief-figures rounded on the front and sides after the manner of free figures. Originally, whether in high or in low relief, they were flat forms, modelled for the plane surface whose ornament they were to be." As the sculptured works were brought out further and further from the background, this background tended to disappear. It was no longer a distinctly marked surface on which the figures were projected, but now higher and now lower, serving only to hold the figures together. When this point was reached, the entire separation of the figures from one another and from the background, became easy. That is, the change in conception is an easy step by which the relief was lost and free-standing figures substituted. This process of change was especially rapid in pedimental groups, for the reason stated above. The pediment field from its architectonic conditions was never suited to decoration in relief. But we find from the works before us that such a system was at least attempted, that painting and an increased projection of relief were employed as aids. We are bound to seek a logical explanation of the facts and of their bearing on the later history of art, and it is safer to assume a process of regular development than a series of anomalous changes. Koepp (*cf. supra*), for example, assumes that these two pediments in low relief are simply exceptions to the general rule, accounting for them by the fact that it was difficult to work out high reliefs from the poros stone of which they were made. He seems to forget that the higher reliefs from the Acropolis are of the same poros. This material in fact appears to have been chosen by the artist because it was almost as easy to incise and carve as the wood and clay to which he had been accustomed. The monuments of later Greek art give no hint of a distinction to be drawn between high and low relief. We find on the same stele figures barely attached to the ground, and others in mere outline. If then there are reasons for finding the origin of pedimental decoration in a plane or low-relief composition of terracotta, made more effective both by a framing of like material and technic, and by the acroteria at either extremity and above, then the process of development which leads at length to the pediments at Aegina and the Parthenon becomes at once easy and natural. We note first the change from terracotta to a low painted relief in stone, then this relief becomes,

from the necessities of the case, higher and higher until finally it gives place to free figures.

If ceramic art really did exert such an influence on temple-sculpture, we should be able to trace analogies in other lines. The most interesting is found in the design and execution of sepulchral monuments. Milchhoefer²³ is of the opinion that the tomb was not originally marked by an upright slab with sculptured figures. He finds what he thinks the oldest representation of sepulchral ornament in a black-figured vase of the so-called "prothesis" class.²⁴ Here are two women weeping about a sepulchral mound on which rests an amphora of like form to the one that bears the scene. He maintains then that such a prothesis vase was the first sepulchral monument, that this was later replaced by a vase of the same description in marble, of course on account of the fragile nature of pottery. For this reason, too, we find no certain proof of the fact in the old tombs, though Dr. Wolters²⁵ thinks that the discovery of fragments of vases on undisturbed tombs makes the case a very strong one. The use of such vases or urns of marble for this purpose became very prevalent. They are nearly always without ornament, save for a single small group, in relief or sometimes in color, representing the dead and the bereaved ones. A very evident connecting-link between these urns and the later sepulchral stele appears in monuments which show just such urns projected in relief upon a plane surface. The relief is sometimes bounded by the outlines of the urn itself,²⁶ sometimes a surrounding background is indicated. In many cases this background assumes the form of the ordinary sepulchral stele. The Central Museum at Athens is especially rich in examples of this kind. On two steles which I have noticed there, three urns are represented side by side. A still more interesting specimen is a stone so divided that its lower part is occupied by an urn in relief, above which is sculptured the usual scene of parting. This

²³ *Mitth. Athen.*, v. 164.

²⁴ *Monumenti dell' Inst.*, VIII, tav. v. 1. g. h.; found near Cape Kolia; at present in the Polytechnic Museum at Athens.

²⁵ *Attische Grabwasen*, a paper read before the German Institute in Athens, Dec. 9, 1890.

²⁶ Examples are Nos. 2099 and 2100 in the archaic room of the Louvre. I remember having seen nothing similar in any other European museum.

scene has its normal place as a relief or a drawing in color on the surface of the urn itself; here, where the step in advance of choosing the plane stele to bear the relief seems already taken, the strength of tradition still asserts itself, and a similar group is repeated on the rounded face of the urn below. The transition to the more common form of sepulchral monument has now become easy; but the characteristics which point to its genesis in the funeral vase are still prominent.

This process of development, so far as can be judged from existing types, reaches down to the beginning of the fourth century B. C. Steles of a different class are found, dating from a period long before this. Instead of a group, they bear only the dead man in a way to suggest his position or vocation during life. All show distinctly a clinging to the technic of ceramic art. Sculptured steles and others merely painted exist side by side. The best known of the latter class is the Lyseas stele, in the Central Museum at Athens. Many more of the same sort have been discovered, differing from their vase predecessors in material and form, but keeping to the old principles. The outlines, for example, are first incised, and then the picture is finished with color. The Aristion stele may be taken as an example of the second order. Relief plays here the leading part; but it must still be assisted by painting, while the resemblance to vase-figures in position, arrangement of clothing, proportion and profile, remains as close as in the simply painted stele. An ever present feature, also, is the palmette acroterium, treated in conventional ceramic style. Loeschke thinks that the origin of red-figured pottery is to be found in the dark ground and light coloring of these steles. Whether the opinion be correct or not, it points to a very close connection between the two forms of art.

The influence of ceramic decoration spread still further. Large numbers of steles and bases for votive offerings have been discovered on the Acropolis, which alike repeat over and over again conventional vase-patterns, and show the use of incised lines and other peculiarities of the technic of pottery.²¹

As to specific resemblances between the pediments of the Acropolis and vase-pictures, the subjects of all the groups are such

²¹ *Mittb. Athen.*, IV, 86.

²² BORRMANN, *Jahrbuch des Instituts*, III, 274.

as appear very frequently on vases of all periods. About seventy Attic vases are known which deal with the contest of Herakles and Triton. One of these is a hydria at present in the Berlin Museum, No. 1906.²⁹ Herakles is represented astride the Triton, and he clasps him with both arms as in the Acropolis group. The Triton's sealy length, his fins and tail, are drawn in quite the same way. It is very noticeable that on the vase the contortions of the Triton's body seem much more violent; here the sculptor could not well follow the vase-painter so closely. It was far easier for him to work out the figure in milder curves; but he followed the vase-type as closely as possible. On the other hand, if the potter had copied the pedimental group the copy could perfectly well have been an exact one. The group is very similar also to a scene in the Assos frieze, with regard to which I quote from Friedrichs-Wolters;³⁰ "It corresponds to the oldest Greek vase-paintings, in which we find boast fights borrowed from Oriental art, united with Greek myths and represented after the Greek manner." This frieze is ascribed to the sixth century B. C., and is not much later than our pediments.

For the Hydra pediment, there exists a still closer parallel, in an archaic Corinthian amphora, published by Gerhard.³¹ Athena appears here as a spectator, though she has no part in the pedimental group; but in every other point, in the drawing of the Hydra, of Herakles and Iolaos, the identity is almost complete. Athena seems to have been omitted, because the artist found it difficult to introduce another figure in the narrow space. Evidently the vase must have represented a type known to the sculptor and copied by him.

For the Typhon pediment, no such close analogies are possible, at least in the form and arrangement of figures. It would seem that this is so simply because no vase-picture of this subject that

²⁹ Published by GERHARD, *Auserlesene griechische Vasenbilder*, No. 111; RAYET et COLLIGNON, *Hist. Céram. Grecque*, fig. 57, p. 125. In the National Museum at Naples, No. 3419, is a black-figured amphora which repeats the same scene. The drawing and position of the two contestants is just as on the Berlin vase, the Triton seeking with one hand to break Herakles' hold about his neck, while with the other he holds a fish as attribute. Athena stands close by, watching the struggle.

³⁰ *Gipsabgüsse antiker Bildwerke*, Nos. 8-12.

³¹ *Auserlesene Vasenbilder*, Nos. 95, 96.

we know so far answers the conditions of a pedimental group that it could be used as a pattern. In matters of detail, a hydria in Munich, No. 125,³² offers the best illustration. For example, the vase-painting and the relief show quite the same treatment of hair, beard and wings in the figure of Typhon.

Speaking more generally, we find continually in the pediments reminiscences of ceramic drawing and treatment. The acroteria, painted in black and red on the natural surface of poros stone, take the shape of palmettes and lotuses. The cornices above and below are of clay or poros, painted in just such designs as appear on the Olympian terracottas; and these designs are frequently repeated in the sculptures themselves. The feathers of Typhon's wings are conventionally represented by a scale-pattern; the arc of the scales has been drawn with compass; we observe still the hole left in the centre by the leg of the compass. The larger pinions at the ends of the wings have been outlined regularly by incised lines, and then filled up with color. All this is as like the treatment of vase-figures, as it unlike anything else in plastic art. In the former the scale-pattern is used conventionally to denote almost anything. Fragments of vases found on the Acropolis itself picture wings in just this way; or it may be Athena's aegis, the fleece of a sheep or the earth's surface that is so represented. On the body of the Triton and the Echidna of the pediments no attempt is made to indicate movement and contortion by the position of the scales; it is everywhere the lifeless conventionality of archaic vase-drawing. In sculptured representations the scale device is dropped, and with it the rigid regularity in the ordering of the pinions. Further, in drawing the scales of the Triton, the artist has dropped usual patterns and copied exactly a so-called bar-ornament which decorates the cornice just over the pediment. Here again he chooses one of the most common motives on vases. For the body of the Echidna, on the other hand, it is the so-called lattice-work pattern which represents the scale covering,—a pattern employed in vases for the most varied purposes, and found on the earliest Cyproite pottery. Even the roll of the snake-bodies of Typhon seems to follow a conventional spiral which we find on old Rhodian ware.

³² *Ibid.*, No. 287.

The outlining and coloring of the figures is most interesting. The poros stone of the reliefs is so soft that it could easily be worked with a knife; so incised lines are constantly used, and regular geometrical designs traced. Quite an assortment of colors is employed: black, white, red, dark brown, apparent green, and in the Typhon group, blue. It is very noticeable that these reliefs, unlike the others which in general furnish the closest analogies, the metopes of the temple at Selinous and the pediment of the Megarian Treasury at Olympia, have the ground unpainted. This is distinctly after the manner of the oldest Greek pottery and of archaic wall paintings. Herein they resemble also another archaic pedimental relief, found near the old temple of Dionysos at Athens, and representing just such a procession of satyrs and mænads as appears so often on vases.

To give a local habitation to the class of pottery which most nearly influenced the artist of these reliefs, is not easy. Perhaps it is a reasonable conjecture to make it Kamiros of Rhodes. Kamiros ware shows just such an admixture of oriental and geometrical designs as characterizes our pediments. Strange monsters of all kinds are represented there; while in the reliefs before us a goodly number of such monsters are translated to Greek soil.

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PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
STUDIES AT ATHENS.
THE FRIEZE OF THE CHORAGIC MONUMENT OF
LYSIKRATES AT ATHENS.¹

[PLATE II-III.]

The small circular Corinthian edifice, called among the common people the Lantern of Diogenes,² and erected, as we know from the inscription³ on the architrave, to commemorate a choragic victory won by Lysikrates, son of Lysitheides, with a boy-chorus of the tribe Akamantis, in the archonship of Euainetos (B. c. 335/4), has long been one of the most familiar of the lesser remains of ancient Athens. The monument was originally crowned by the tripod which was the prize of the successful chorus, and it doubtless was one of many buildings of similar character along the famous "Street of Tripods."⁴ It is the aim of this paper to show, that the earliest publications of the sculptured reliefs on this monument have given a faulty representation of them, owing to the transposition of two sets of figures; that this mistake has been repeated in most subsequent publications down to our day; that inferences deduced therefrom have in so far been vitiated; and that new instructive facts concerning Greek composition in sculpture can be derived from a corrected rendering of the original.

Although we are not now concerned either with the subsequent fortunes of the monument and the story of its preservation, or with its architectural features and the various attempts which

¹ It is a pleasure to acknowledge my obligations to the Director of the School, Dr. Waldstein, who has kindly assisted me in the preparation of this paper by personal suggestions.

² This does not exclude the tolerably well-attested fact, that the name "Lantern of Diogenes" formerly belonged to another similar building near by, which had disappeared by 1676. ³ C. I. G. 221. ⁴ Cf. PAUS., I, 20, 1.

have been made to restore the original design, it may be convenient to recall briefly a few of the more important facts pertaining to these questions. The Monument of Lysikrates first became an object of antiquarian interest in 1669, when it was purchased by the Capuchin monks, whose mission had succeeded that of the Jesuits in 1658, and it was partially enclosed in their *hospitium*.⁵ The first attempt to explain its purpose and meaning was made by a Prussian soldier, Johann Georg Transfeldt, who, after escaping from slavery in the latter part of 1674, fled to Athens, where he lived for more than a year.⁶ Transfeldt deciphered the inscription, but was unable to decide whether the building was a “*templum Demosthenis*” or a “*Gymnasium a Lysistrate *** exstructum propter juventutem Athenensem ex tribu Aca-mantia.*”⁷ Much more important for the interpretation of the monument was the visit of Dr. Jacob Spon of Lyons, who arrived at Athens early in the year 1676. Spon also read the inscription,⁸ and, from a comparison with other similar inscriptions, determined the true purpose of edifices of this class.⁹ Finally the first volume of Stuart and Revett’s *Antiquities of Athens*, which appeared in 1762, confirmed, corrected and extended Spon’s results. Careful and exhaustive drawings accompanied the description of the monument.

In the latter part of the eighteenth and the early part of the nineteenth century, Athens was visited by many strangers from western Europe, and the hospitable convent of the Capuchins and the enclosed “Lantern,” which at this time was used as a closet for books, acquired some notoriety. Late in the year 1821, however, during the occupation of Athens by the Turkish troops under Omer Vrioni, the convent was accidentally burned, and its most precious treasure was liberated, to be sure, but, as may still be seen, sadly damaged by the fire, and what was still more unfortunate, left unprotected and exposed to the destructive mischief of Athenian street-arabs and their less innocent elders.

Aside from some slight repairs and the clearing away of rubbish, the monument remained in this condition until 1867, when the

⁵ SPON, *Voyage*, II, p. 244; LABORDE, *Athènes*, I, p. 75 and note 2.

⁶ MICHAELIS, *Mitth. Athen.*, I, p. 108.

⁷ *Mitth. Athen.*, I, p. 114.

⁸ SPON, III, 2, p. 21 f.

⁹ SPON, II, p. 174.

French Minister at Athens, M. de Gobineau, acting on behalf of his government, into whose possession the site of the former monastery had fallen, employed the architect Boulanger to make such restorations as were necessary to save the monument from falling to pieces.¹⁰ At the same time the last remains of the old convent were removed, and some measures taken to prevent further injury to the ruin. Repairs were again being made under the direction of the French School at Athens, when I left Greece, in April, 1892.

For the architectural study of the monument of Lysikrates little has been done since Stuart's time. In the year 1845 and in 1859, the architect Theoph. Hansen made a new series of drawings from the monument, and upon them based a restoration which differs somewhat from that of Stuart, especially in the decoration of the roof. This work is discussed in the monograph of Von Lützow.¹¹

Confining our attention to the sculptures of the frieze, we will examine certain inaccuracies of detail which have hitherto prevailed in the treatment of this important landmark in the history of decorative reliefs of the fourth century. The frieze, carved in low relief upon a single block of marble, runs continuously around the entire circumference of the structure. Its height is only .012 m. (lower, rectangular moulding) + .23 m. (between mouldings) + .015 m. (upper, rounded moulding).¹² It is to be noticed that the figures rest upon the lower moulding, while they are often (in fourteen cases) carried to the top of the upper moulding.

The question as to the subject of the relief was a sore puzzle to the early travellers. Père Babin finds "des dieux marins";¹³ Transfeldt, "varias gymnasticorum figuras," which he thought represented certain games held "in Aegena insula" in honor of Demosthenes.¹⁴ Vernon (1676), who regarded the monument as a temple of Hercules, sees his labors depicted in the sculptures of the frieze.¹⁵ Spon, while not accepting this view, admitted that some, at least, of the acts of Herakles were represented; so that the building, apart from its monumental purpose, might also have been sacred

¹⁰ VON LÜTZOW, *Zeitschr. für bildende Kunst*, III, pp. 23, 236 f.

¹¹ Pp. 239 ff., 264 ff. For another restoration of the roof cf. SEMPER, *Der Stil*, vol. II, p. 242.

¹² My own measurements.

¹³ WACHSMUTH, *Die Stadt Athen*, I, p. 757.

¹⁴ *Mitth. Athen.*, I, p. 113.

¹⁵ LABORDE, I, pp. 249 f.

to that deity.¹⁶ To Stuart and Revett¹⁷ is due the credit of being the first to recognize in these reliefs the story of Dionysos and the pirates, which is told first in the Homeric Hymn to Dionysos. In the Homeric version, Dionysos, in the guise of a fair youth with dark locks and purple mantle, appears by the sea-shore, when he is espied by Tyrrhenian pirates, who seize him and hale him on board their ship, hoping to obtain a rich ransom. But when they proceed to bind him the fetters fall from his limbs, whereupon the pilot, recognizing his divinity, vainly endeavors to dissuade his comrades from their purpose. Soon the ship flows with wine; then a vine with hanging clusters stretches along the sail-top, and the mast is entwined with ivy. Too late the marauders perceive their error and try to head for the shore; but straightway the god assumes the form of a lion and drives them, all save the pious pilot, terror-stricken into the sea, where they become dolphins.

In the principal post-Homeric versions, the Tyrrhenians endeavor to kidnap Dionysos under pretext of conveying him to Naxos, the circumstances being variously related. Thus in the *Naξιακά* of Aglaosthenes (*apud Hygin. Poet. Astronom. II. 17*), the child Dionysos and his companions are to be taken to the nymphs, his nurses. According to Ovid,¹⁸ the pirates find the god on the shore of Chios, stupid with sleep and wine, and bring him on board their vessel. On awaking he desires to be conveyed to Naxos, but the pirates turn to the left, whereupon, as they give no heed to his remonstrances, they are changed to dolphins and leap into the sea. Similarly Servius, *Ad. Verg. Aen.*, I. 67. In the *Fabulae* of Hyginus (cxxxiv), and in Pseudo-Apollodorus,¹⁹ Dionysos engages passage with the Tyrrhenians. Nonnus, however, returns to the Homeric story, which he has modified, extended, and embellished in his own peculiar way.²⁰ These versions, to which may be added that of Seneca,²¹ all agree in making the scene take place on ship-board, and, if we except the “*comites*” of Aglaosthenes, in none of them is the god accompanied by a retinue of satyrs. But Philostratus²² pretends to describe a painting, in which two ships are

¹⁶ Spon, II, p. 175.

¹⁷ I, p. 27.

¹⁸ Met., III. 605 ff.

¹⁹ *Bibliotheca*, III. 5. 8.

²⁰ Dionys., XLV. 119 ff.

²¹ *Oedipus*, vv. 455-478.

²² Imag., I. 19.

portrayed, the pirate-craft lying in ambush for the other, which bears Dionysos and his rout.

In our frieze, however, the myth is represented in an entirely different manner. The scene is not laid on shipboard, but near the shore of the sea, where, as the action shows, Dionysos and his attendant satyrs are enjoying the contents of two large cratera, when they are attacked by pirates. The satyrs who are characterized as such by their tails, and in most cases (9 + 2 : 7) by the panther-skin, forthwith take summary vengeance upon their assailants, of whom some are bound, others beaten and burned, while others take refuge in the sea, only to be changed into dolphins by the invisible power of the god.

These modifications of the traditional form of the story have usually²³ been accounted for by the necessities of plastic art; and this view has in its favor that the representation in sculpture of any of the other versions which are known to us, would be attended by great difficulties of composition, and would certainly be much less effective. Reisch, however, has suggested²⁴ that this frieze illustrates the dithyrambus which won the prize on this occasion, and that the variations in the details of the story are due to this. There is no evidence for this hypothesis, inasmuch as we have no basis upon which to found an analogy, and know nothing whatever of the nature of the piece in which the chorus had figured.

The general arrangement and technic of this relief, the skill with which unity of design is preserved despite the circular form, the energy of the action, and the variety of the grouping, have often been pointed out. More particularly, the harmony and symmetry, which the composition exhibits, have been noticed by most of the later writers who have had occasion to describe the frieze. It is here, however, that we find the divergencies and inaccuracies which have been alluded to above, and these are such as to merit a closer examination.

To begin with the central scene, which is characterized as such by the symmetrical grouping of two pairs of satyrs about the god

²³ E. g. OVERBECK, *Plastik*,³ II. p. 92; Friedrichs-Wolters, *Bausteine*, p. 488.

²⁴ Griech. *Weihgeschenke*, p. 102.

Dionysos and his panther and is externally defined by a crater at either side, we observe that, while the two satyrs immediately to the right (i^1) and left (i) of Dionysos (0), correspond in youth and in their attitude toward him, the satyr at the left (i) has a thyrsus and a mantle which the other does not possess. These figures have unfortunately suffered much; the central group is throughout badly damaged, the upper part of the body and the head of Dionysos especially so. Of the tail of the panther as drawn in Stuart's work, no trace exists. The faces of the two satyrs and the head of the thyrsus are also much mutilated. The other two satyrs ($ii : ii^1$), whose faces are also mutilated, correspond very closely in youth, action, and nudity. In these two pairs of figures it is also to be noticed that the heads of i and ii at the left face the central group, while the heads of i^1 and ii^1 at the right are turned away from the centre, toward the right. By this device the sculptor has obviated any awkwardness which might arise from the necessity of placing Dionysos in profile.

Passing now to the scenes outside of the vases, we observe that, of the first pair of satyrs, the bearded figure at the left (iii), leans upon a tree-stump, over which is thrown his panther-skin, as he contemplates the contest between his fellows and the pirates, while against his right side rests a thyrsus. The corresponding satyr on the right (iii^1), also bearded, but with his head now nearly effaced, wears his mantle slung over the left shoulder as he advances to the right, offering with his right hand the freshly filled wine-cup to a youthful companion (iv^1). The latter, with panther-skin over left shoulder and arm, and club (partially effaced) in outstretched right hand, is moving rapidly to the right, as if to join in the battle; his face (also somewhat mutilated) is partly turned to the left, and despite his attitude of refusal he forms a sort of group with his neighbor on that side (iii^1), and has no connection, as has been wrongly assumed,²⁵ with the following group to the right (v^1). Corresponding with this youthful satyr, we have on the left (iv) a nude bearded satyr (face somewhat damaged,) armed with a torch instead of a club, moving swiftly to the left to take part in the contest. He has no group-relation with his

²⁵ British Museum Marbles, IX, p. 114.

neighbor on the right (III), although he may be supposed to have just left him. The relation is not sufficiently marked in the case of the corresponding figures on the other side (III¹, IV¹) to injure the symmetry.

These two pairs of satyrs serve to express the transition from the untroubled ease of Dionysos and his immediate attendants, to the violence and confusion of the struggle. Thus the first pair (III : III¹) seem to feel that their active participation is unnecessary, and so belong rather to the central scene; while the second pair (IV : IV¹), hurrying to the combat, are to be reckoned rather with those who are actively engaged. This is also emphasized by the symmetrical alternation of young and old satyrs, *i. e.* :

old	young	old	young	old	young
{					}
vii a	vb	iv	iv ¹	vii b	vii ¹ b

and by their correspondence to VII : VII¹.

On the left side we have next a group, turned toward the right, consisting of a young satyr with flowing panther-skin (vb), who places his left knee on the back of a prostrate pirate (va) whom he is about to strike with a club which he holds in his uplifted right hand. The pirate (face now somewhat damaged) is, like all of his fellows, youthful and nude. The corresponding group on the right, faces the left, and represents a nude bearded satyr (v¹b,) with left knee on the hip of a fallen pirate (v¹a), whose hands he is about to bind behind his back. Thus the arrangement of the two groups corresponds, but the action is somewhat different.

I now wish to point out an error which is interesting and instructive as illustrating how mistakes creep into standard archaeological literature to the detriment of a proper appreciation of the original monuments; and I may perhaps hope not only to correct this error once for all, but also, in so doing, to make clearer certain noteworthy artistic qualities of this composition.

If we turn to the reproductions of the Lysikrates frieze in the common manuals of Greek sculpture, we find that the group (v¹) has exchanged places with the next group to the right (vii¹) while the corresponding groups on the left side (v, vi) retain their proper position. In order to detect the source of this confusion, we have only to examine the drawings of Stuart and Revett, from which nearly all the subsequent illustrations are more or less directly

derived. In the first volume of Stuart and Revett, the groups (v¹, iv¹) occupy plates XIII and XIV, and it is evident that the drawings have been in some way misplaced. These plates have been reproduced on a reduced scale in Meyer's *Gesch. d. bildenden Künste*²⁶ (1825); Müller-Wieseler²⁷ (1854); Overbeck,²⁸ *Plastik*³ (1882); W. C. Perry, *History of Greek Sculpture*²⁹ (1882); Mrs. L. M. Mitchell, *History of Ancient Sculpture*;³⁰ Baumeister, *Denkmäler*³¹ (1887); Harrison and Verrall, *Ancient Athens*³² (1890), and in all with the same misarrangement.

Nevertheless correct reproductions of the frieze, derived from other sources, have not been wholly lacking. There is, for example, a drawing of the whole monument by S. Pomardi in Dodwell's *Tour through Greece*³³ (1819), in which the correct position of these groups is clearly indicated. In 1842 appeared volume IX of the *British Museum Marbles* containing engravings of a cast made by direction of Lord Elgin, about 1800.³⁴ Inasmuch as this cast or similar copies have always been the chief sources for the study of the relief, owing to the unsatisfactory preservation of the original, it is the more strange that this mistake should have remained so long uncorrected,³⁵ or that Müller-Wieseler should imply³⁶ that their engraving was corrected from the British Museum publication, when no trace of such correction is to be found. A third drawing in which the true arrangement is shown, is the engraving after Hansen's restoration of the whole monument, published in Von Lützow's monograph³⁷ (1868). Although Stuart's arrangement violates the symmetry maintained between the other groups of the frieze, yet Overbeck³⁸ especially commends the symmetry shown in the composition of these portions of the relief.

²⁶ Tafel 25. ²⁷ I Taf. 37. ²⁸ II, p. 91. ²⁹ P. 474. ³⁰ P. 487. ³¹ II, p. 841.
³² P. 248. ³³ I, opposite p. 289.

³⁴ H. MEYER, *Gesch. der bildenden Künste*, II, p. 242, note 813.

³⁵ Since I first noticed the error from study of the original monument, it gives me pleasure to observe that Mr. Murray in his *History of Greek Sculpture*, II, p. 333, note, has remarked that there is a difference between Stuart's drawing and the cast, without, however, being able to determine positively which is correct, owing to lack of means of verification. He was inclined to agree with the cast.

³⁶ I, Taf. 87, note 150: *Mit Berücksichtigung der Abbildungen nach später genommenen Gypsabgüssen in Ancient Marbles in the Brit. Mus.*

³⁷ Between pp. 240 and 241.

³⁸ *Plastik*, II, p. 94.

Now let us examine the symmetry as manifested in the corrected arrangement. After the figures which we have found to have a thoroughly symmetrical disposition, we have on the left side a group consisting of a bearded satyr (face damaged), with panther-skin (vi a), about to strike with his thyrsus a pirate kneeling at the left (vi b), with his hands bound behind his back. The face of this figure is also somewhat injured. The corresponding group on the right (vi¹ instead of the erroneous v¹), represents a youthful satyr with panther-skin thrown over his arm (vi¹ a), about to strike with the club which he holds in his uplifted right hand, a pirate (vi¹ b), who has been thrown on his back, and raises his left arm, partly in supplication and partly to ward off the blow. As in the groups v:v¹, so in vi:vi¹, persons, action, and arrangement, are closely symmetrical, while a graceful variety and harmony is effected by so modifying each of these elements as to repeat scarcely a detail in the several corresponding figures.

After these five fighters, we observe on the left a powerful bearded satyr (face much injured), with flowing panther-skin, facing the right, and wrenching away a branch from a tree (vii). The corresponding figure on the right side (vii¹) is a nude, bearded satyr, who is breaking down a branch of a tree. At first the correspondence does not seem to be maintained, for this satyr faces the right, whereas after the analogy of figures vii and iv we might expect him to face the left. But a closer examination shows that this lack of symmetry is apparent only when figures vii:vii¹ are considered individually, and apart from the scenes to which they belong. For while iv and vii, the outside figures of the main scene on the left, appropriately face each other, the figures iv¹ and vii¹, which occupy the same position with regard to the chief scene on the right, are placed so as to face in opposite directions. By this subtle device, for which the relation between the figures iii¹ and iv¹ furnishes an evident motive, the sculptor has contrived to indicate distinctly the limits of these scenes, while the symmetry existing between them is heightened and emphasized by the avoidance of rigid uniformity.

The trees serve also to mark the end of the preceding scenes, and to contrast the land, upon which they stand, with the sea, of which we behold a portion on either side, while a pair of cor-

responding, semi-human dolphins (viii : viii¹) are just leaping into the element which is to form their home. These dolphins are not quite accurately drawn in Stuart and Revett, for what appears as an under jaw is, as Dodwell²⁹ rightly pointed out, a fin, and their mouths are closed; the teeth, which are seen in Stuart's drawing and all subsequent reproductions of it, do not exist on the monument. The correct form of the head may be seen in the British Museum publication.

After these dolphins, we have on each side another piece of land succeeded again by a stretch of sea. On these pieces of land are seen on each side two groups of two figures each, while a third incipient dolphin (0¹), which does not stand in group-relation with any of the other figures, leaps into the sea between them. In these groups there is a general correspondence, but it does not extend to particular positions or to accessories.

At the left we observe first a bearded satyr with torch and flowing panther-skin (ix a), pursuing a pirate, who flees to the left (ix b). The space between the satyr and his victim is in part occupied by a hole, which was probably cut for a beam at the time when the monument was built into the convent. In the corresponding places on the right side, we have a bearded satyr with panther-skin (ix¹ a), about to strike with the forked club which he holds in his uplifted right hand, a seated and bound pirate (ix¹ b), whose hair the satyr has clutched with his left hand. The heads of both figures are considerably damaged, and the lower part of the right leg of the pirate is quite effaced. To return to the left side, the tree at the left of the fleeing pirate (ix b), does not correspond with any thing on the right side. It serves to indicate the shore of the sea, while on the other side this is effected by the high rocks upon which the pirate (x¹ b) is seated.

The next group on the left is represented as at the very edge of the water, and consists of a nude bearded satyr (x b), who is dragging an overthrown pirate (x a) by the foot, with the evident intention of hurling him into the sea. The legs and the right arm of this pirate have been destroyed by another hole, similar to that which is found between figures ix and ix a. On the right side, a

²⁹ I, p. 290.

bearded satyr, with flowing panther-skin (x¹ a) rushes to the right, thrusting a torch into the face of a pirate who is seated on a rock (x¹ b), with his hands bound behind his back. In his shoulder are fastened the fangs of a serpent, which is in keeping here as sacred to Dionysos. Perhaps, as Stuart has suggested,⁴⁰ he may be a metamorphosis of the cord with which the pirate's hands are bound; but the sculptor has not made this clear. The figures of this group, which were in tolerable preservation at the time when Lord Elgin's cast was made, have since been nearly effaced, particularly the face, legs and torch of the satyr, and the face and legs of the pirate, also the rocks upon which he is seated, and the serpent. Between these figures and the following dolphin, there is a third hole, similar to those mentioned already, and measuring 15 x 16 centimetres.

The less rigid correspondence of these groups (x, ix : ix¹, x¹), has caused some difficulty. In the text of the *British Museum Marbles*,⁴¹ all that falls between the pair of dolphins (viii : viii¹), is regarded as belonging to a separate composition, grouped about the single dolphin (0¹). But such an interpolated composition, besides having no purpose in itself, would vitiate the unity of the entire relief. For, although the circular form is less favorable to a strongly marked symmetry than is the plane, at least in compositions of small extent, still the individual figures and groups must bear some relation to a common centre, and there can be no division of interest, or mere stringing together of disconnected figures or groups of figures. Such a stringing together is assumed by Mr. Murray, when, in his *History of Greek Sculpture*,⁴² he speaks of seven figures after the pair of dolphins, which, "though without direct responson among themselves, still indicate the continued punishment of the pirates." In the pirate seated on the rocks (x b), however, Mr. Murray⁴³ finds what he calls a "sort of echo" of Dionysos, inasmuch as he is seated in a commanding position, and is attacked by the god's serpent. There is, to be sure, a certain external resemblance in the attitudes of the two figures, but direct connection cannot be assumed without separating x¹ a

⁴⁰ I, p. 34. Stuart cites Nonnus, *Dionys.* XLV. 187. Cf. also *Ancient Marbles in the British Mus.* ix. p. 115.

⁴¹ IX, p. 116. ⁴² II, p. 338. ⁴³ II, p. 332.

from $x^1 b$, with which, however, it obviously forms a group, and entirely disregarding the relations which the groups x , ix ; ix^1 , x^1 bear to one another and to the dolphin 0^1 . And this Mr. Murray does, when he takes seven figures, among which $x^1 b$ is evidently to be considered as central instead of what is plainly four groups of two figures each, *plus* one dolphin.

There is, as we have already said, a general correspondence between these groups. This is effected in such a way that the group ix resembles x^1 in action and arrangement, rather than 9^1 , which, on the other hand, resembles group x , rather than group ix . In other words, the diagonalism which we have noticed above in the arrangement of young and old satyrs ($v^1 a$, $v^1 b$, iv : iv^1 , $v^1 b$, $vi^1 a$), is extended here to the groups themselves.

Moreover, the stretches of sea with the paired dolphins ($viii$: $viii^1$), which are introduced between these groups and those which had preceded, are not to be regarded as separating the composition into two parts, but as connecting the central scene with similar scenes in a different locality. These scenes are again joined by another stretch of sea with the single dolphin (0^1), which thus forms the centre of the back of the relief, opposite Dionysos, and the terminus of the action which proceeds from the god toward either side.

I do not mean to say, however, that these scenes beyond the dolphins ($viii$: $viii^1$), are to be looked upon as a mere repetition of those which have preceded, distinguished only by greater license in the symmetry, or that the changes of locality have no other purpose than to lend variety to the action. On the contrary, if we examine the indications of scenery in this relief, we see that those features by which the artist has characterized the place of this part of the action as the seashore, the trees near the water's edge, the alternating stretches of land and sea, the dolphins, the satyr pulling the pirate into the water (x), are confined to the space beyond the trees. In the scenes on the other side of the trees, there is not only no suggestion of the sea, but the rocks and the sequence of figures up to Dionysos indicate rather that his place of repose is some elevation near the seashore. The contrast between the more peaceful and luxurious surroundings of the god and the violent contest with the pirates, is thus carried out and enforced

by the sculptural indications of landscape, as well as by the leading lines of the composition. Though I would not imply that the composition of this frieze was in any way governed by the laws which rule similar compositions in pediments, it is interesting and instructive to note that the general principles of distribution of subject which have been followed, are somewhat similar to those which we can trace in the best-known pediments extant; thus, as the god in his more elevated position would occupy the centre of the pediment, so the low-lying seashore and the scenes which are being enacted upon it correspond to the wings at either side.

To recapitulate, the concordance of figures in this relief is then briefly as follows: In the central scene, *i. e.*, inside the vases, and in the first pair of transitional figures (III, II, I: I¹, II¹, III¹), equality of persons, but not of accessories (drapery, thyrsi); action symmetrical. In the immediately adjacent scenes, including the second pair of transitional figures and the satyrs at the trees (VII, VI, V, IV: IV¹, V¹, VI¹, VII¹), the persons are diagonally symmetrical in VI a, V b, IV: IV¹, V¹ b, VI¹ a (*i. e.*, old, young, old: young, old, young), equal in VII: VII¹. The drapery is diagonally symmetrical in V b, IV: IV¹, V¹ b (*i. e.*, panther-skin, nudity: panther-skin, nudity), equal in VI a: VI¹ a, not symmetrical in VII: VII¹, and the weapons are not symmetrical, except in VII: VII¹ (*i. e.*, thyrsus, club, torch: club, no weapon, club). The action is symmetrical throughout, although not exactly the same in V: V¹. In the scenes beyond the dolphins, the persons are equivalent (X, IX: IX¹, X¹), while the action, drapery and weapons are harmonious, but not diagonally symmetrical (*i. e.*, IX a = X¹ a, but X b < IX¹ a). At the left, a tree; at the right, a pile of rocks and a serpent.—The persons are, accordingly, symmetrical throughout; the action is so until past the dolphins (VIII: VIII¹); the drapery only in II: II¹, and in VI, V, IV: IV¹, V¹, VI¹; and the weapons not at all.

It is thus apparent that the correspondence of the figures in this frieze is by no means rigid and schematic or devoid of life, but that, on the contrary, the same principles of symmetry obtain which have been pointed out by many authorities as prevalent in Greek art.⁴⁶ The whole composition exhibits freedom and

⁴⁶ Cf. Brunn, *Bildwerke des Parthenon*; Flasch, *Zum Parthenonfries* pp. 65 ff.; and Waldstein, *Essays on the Art of Pheidias*, pp. 80 f., 114 ff., 158 ff., 194 f., 205, 210.

elasticity, not so indulged in as to produce discord, but peculiarly appropriate to the element of mirth and comedy which characterizes the story, and upon which the sculptor has laid especial stress.

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Berlin, August 19, 1892.

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
STUDIES AT ATHENS.

DIONYSUS ἐν Ληναῖς.*

The dispute over the number of Dionysiac festivals in the Attic calendar, more particularly with regard to the date of the so-called Lenaea, is one of long duration.¹ Boeckh maintained that the Lenaea were a separate festival celebrated in the month Gamelio. To this opinion August Mommsen in the *Heortologie* returns; and maintained as it is by O. Ribbeck,² by Albert Müller,³ by A. E. Haigh,⁴ and by G. Oehmichen,⁵ it may fairly be said to be the accepted theory to-day. This opinion, however, is by no means universally received. For example, O. Gilbert⁶ has attempted to prove that the country Dionysia, Lenaea, and Anthesteria were only parts of the same festival.

But while the date of the so-called Lenaea has been so long open to question, until recently it has been universally held that some portion at least of all the festivals at Athens in honor of the wine-god was held in the precinct by the extant theatre of Dionysus. With the ruins of this magnificent structure before the eyes, and no other theatre in sight, the temptation was certainly a strong one to find in this neighborhood the Limnae mentioned in the records of the ancients. When Pervanoglu found a handful of rushes in the neighborhood of the present military hospital, the matter seemed finally settled. So, on the maps and charts of

* I wish to express my hearty thanks to Prof. U. von Wilamowitz-Möllendorff of the University of Göttingen, Prof. R. Schöll of the University of Munich, Prof. A. C. Merriam of Columbia College, and Dr. Charles Waldstein and Prof. R. B. Richardson, Directors of the American School at Athens, for many valuable criticisms and suggestions.

¹ *Vom Unterschied der Lenäen, Anthesterien und ländlichen Dionysien, in den Abhdl. der k. Akad. der Wiss. zu Berlin, 1816–17.*

² *Die Anfänge und Entwicklung des Dionysoscultus in Attika.*

³ *Bühnen-Alterthümer.*

⁴ *The Attic Theatre.*

⁵ *Das Bühnenwesen der Griechen und Römer.*

⁶ *Die Festzeit der Attischen Dionysien.*

Athens we find the word *Limnae* printed across that region lying to the south of the theatre, beyond the boulevard and the hospital. When, therefore, *Mythology and Monuments of Athens*, by Harrison and Verrall, appeared over a year ago, those familiar with the topography of Athens as laid down by Curtius and Kaupert were astonished to find, on the little plan facing page 5, that the Limnae had been removed from their time-honored position and located between the Coloneus Agoraeus and the Dipylum. That map incited the preparation of the present article.

While investigating the reasons for and against so revolutionary a change, the writer has become convinced that here, Dr. Dörpfeld, the author of the new view, has built upon a sure foundation. How much in this paper is due to the direct teaching of Dr. Dörpfeld in the course of his invaluable lectures *An Ort und Stelle* on the topography of Athens, I need not say to those who have listened to his talks. How much besides he has given to me of both information and suggestion I would gladly acknowledge in detail; but as this may not always be possible, I will say now that the views presented here after several months of study, in the main correspond with those held by Dr. Dörpfeld. The facts and authorities here cited, and the reasoning deduced from these, are, however, nearly all results of independent investigation. So I shall content myself in general with presenting the reasons which have led me to my own conclusions; for it would require a volume to set forth all the arguments of those who hold opposing views.

The passage Thucydides, II. 15, is the authority deemed most weighty for the placing of the Limnae to the south of the Acropolis. The question of the location of this section of Athens is so intimately connected with the whole topography of the ancient city, that it cannot be treated by itself. I quote therefore the entire passage:

τὸ δὲ πρὸ τούτου ἡ ἀκρόπολις ἡ νῦν οὖσα πόλις ἦν, καὶ τὸ ὑπ' αὐτὴν πρὸς νότου μάλιστα τετραμένου. τεκμήριον δὲ· τὰ γὰρ ἵερα ἐν αὐτῇ τῇ ἀκροπόλει καὶ ἄλλων θεῶν ἐστὶ, καὶ τὰ ἔξω πρὸς τοῦτο τὸ μέρος τῆς πόλεως μᾶλλον ἔδρυται, τό τε τοῦ Διὸς τοῦ Ὀλυμπίου, καὶ τὸ Πύθιον, καὶ τὸ τῆς Γῆς, καὶ τὸ ἐν Δίμναις Διονύσου, φ τὰ ἀρχαιότερα Διονύσια τῇ δωδεκατῃ ποιεῖται ἐν μηνὶ Ἀνθεστηριῶν· ωσπέρ καὶ οἱ ἀπ' Ἀθηναίων Ἰωνες ἔτι καὶ νῦν νομίζουσιν. ἔδρυται δὲ καὶ ἄλλα ἵερα

ταύτη ἀρχαῖα. καὶ τῇ κρήνῃ τῇ νῦν μὲν τῶν τυράννων οὕτω σκευασάντων Ἐπιεικρούνῳ καλουμένῃ, τὸ δὲ πάλαι φανερών τῶν πηγῶν οὐσῶν Καλλιρρόῃ ὀνομασμένῃ, ἐκείνῃ τε ἔγγὺς οὖσῃ τὰ πλείστου ἅξια ἔχρωντο, καὶ νῦν ἔτι ἀπὸ τοῦ ἀρχαίου πρό τε γαμικῶν καὶ ἐστὶν ἄλλα τῶν ιερῶν νομίζεται τῷ ὑδατι χρῆσθαι.

Two assumptions are made from this text by those who place the Limnae by the extant theatre. The first is that ὑπ' αὐτήν includes the whole of the extensive section to the south of the Acropolis extending to the Ilissus, and reaching to the east far enough to include the existing Olympieum, with the Pythium and Callirhoe, which lay near. The second assumption is that these are the particular localities mentioned under the *τεκμήριον* δὲ. Let us see if this is not stretching ὑπ' αὐτήν a little. I will summarize, so far as may be necessary for our present purpose, the views of Dr. Dörpfeld on the land lying ὑπὸ τὴν ἀκρόπολιν, or the Pelasgicum.

That the Pelasgicum was of considerable size is known from the fact that it was one of the sacred precincts occupied when the people came crowding in from the country at the beginning of the Peloponnesian War,⁷ and from the inscription⁸ which forbade that stone should be quarried in or carried from the precinct, or that earth should be removed therefrom. That the Pelasgicum with its nine gates was on the south, west, and southwest slopes, the formation of the Acropolis rock proves, since it is only here that the Acropolis can be ascended easily. That it should include all that position of the hillside between the spring in the Aesculapium on the south and the Clepsydra on the northwest, was necessary; for in the space thus included lay the springs which formed the source of the water-supply for the fortifications. That the citadel was divided into two parts, the Acropolis proper, and the Pelasgicum, we know.⁹ One of the two questions in each of the two passages from Aristophanes refers to the Acropolis, and the other to the Pelasgicum, and the two are mentioned as parts of the citadel. That the Pelasgicum actually did extend from the Aesculapium to the Clepsydra we know from Lucian.¹⁰

⁷ THUCYDIDES, II. 17.

⁸ DITTELBERGER, S. I. G. 13, 55 ff.

⁹ THUCYDIDES, II. 17; ARISTOPHANES, *Birds*, 829 ff.; *Lysistrata*, 480 ff.

¹⁰ *Piscator*, 42.

The people are represented as coming up to the Acropolis in crowds, filling the road. The way becoming blocked by numbers, in their eagerness they begin to climb up by ladders, first from the Pelasgicum itself, through which the road passes. As this space became filled, they placed their ladders a little further from the road, in the Aesculapieum to the right and by the Areopagus to the left. Still others come, and they must move still further out to find room, to the grave of Talos beyond the Aesculapieum and to the Anaceum beyond the Areopagus. In another passage of Lucian,¹¹ Hermes declares that Pan dwells just above the Pelasgicum; so it reached at least as far as Pan's grotto.

The fortifications of Mycenæ and Tiryns prove that it was not uncommon in ancient Greek cities to divide the Acropolis, the most ancient city, into an upper and a lower citadel.

Finally, that the strip of hillside in question was in fact the Pelasgicum, we are assured by the existing foundations of the ancient walls. A Pelasgic wall extends as a boundary-wall below the Aesculapieum, then onward at about the same level until interrupted by the Odeum of Herodes Atticus. At this point there are plain indications that before the construction of this building, this old wall extended across the space now occupied by the auditorium. Higher up the hill behind the Odeum, and both within and without the Beulé gate, we find traces of still other walls which separated the terraces of the Pelasgicum and probably contained the nine gates which characterized it. Here then we have the ancient city of Cecrops, the city before Theseus, consisting of the Acropolis and the part close beneath, particularly to the south, the Pelasgicum. We shall find for other reasons also that there is no need to stretch the meaning of the words *ἐν τῷ αὐτῷ πρὸς νότον* to make them cover territory something like half a mile to the eastward, and to include the later Olympieum within the limits of our early city.

Wachsmuth has well said,¹² although this is not invariably true,¹³ that *ἐνπόλη τὴν ἀκρόπολιν* and *ἐνπόλη τῇ ἀκροπόλει* are used with refer-

¹¹ *Bis Accus*, 9.

¹² *Berichte der philol.-histor. Classe der Königl. Sächs. Gesell. der Wiss.*, 1887, p. 888.

¹³ *Am. Jour. of Archaeology*, III. 88, ff.

ence to objects lying halfway up the slope of the Acropolis. On the next page he adds, however, that Thucydides could not have meant to describe as the ancient city simply the ground enclosed within the Pelasgic fortifications, or he would have mentioned these in the *τεκμήρια*. Thucydides, in the passage quoted, wished to show that the city of Cecrops was very small in comparison with the later city of Theseus; that the Acropolis was inhabited; and that the habitations did not extend beyond the narrow limits of the fortifications. He distinctly says that before the time of Theseus, the Acropolis was the city. He proceeds to give the reasons for his view: The presence of the ancient temples on the Acropolis itself, the fact that the ancient precincts outside the Acropolis were *πρὸς τοῦτο τὸ μέρος τῆς πόλεως*, and the neighborhood of the fountain Enneacrounus. We know, that the Acropolis was still officially called *πόλις* in Thucydides' day; and *πόλις* so used would have no meaning if the Acropolis itself was not the ancient city. *Πρὸς τοῦτο τὸ μέρος*, in the passage quoted, refers to the city of Cecrops, the Acropolis and Pelasgicum taken together; and *τῆς πόλεως* refers to the entire later city as it existed in the time of Thucydides. It is, however, in the four temples outside the Acropolis included under the *τεκμήριον δέ* that we are particularly interested. The Pythium of the passage cannot be that Pythium close by the present Olympieum, which was founded by Pisistratus. Pausanias (1. 28, 4,) says: "On the descent [from the Acropolis], not in the lower part of the city but just below the Propylaea, is a spring of water, and close by a shrine of Apollo in a cave. It is believed that here Apollo met Creusa." Probably it was because this cave was the earliest abode of Apollo in Athens that Euripides placed here the scene of the meeting of Apollo and Creusa.

According to Dr. Dörpfeld it was opposite this Pythium that the Panathenaic ship came to rest.¹⁴ In *Ion*, 285, Euripides makes it clear that, from the wall near the Pythium, the watchers looked toward Harma for that lightning which was the signal for the sending of the offering to Delphi. This passage would have no meaning if referred to lightning to be seen by looking toward

¹⁴ PHILOSTRAT. *Vit. Sophist.* II p. 236.

Harma from any position near the existing Olympieum; for the rocks referred to by Euripides are to the northwest, and so could not be visible from the later Pythium. To be sure, in later times the official title of the Apollo of the cave seems to have been *ἵπερ ἀκραῖος* or *ἐν ἀκραις*, but this was only after such a distinction became necessary from the increased number of Apollo precincts in the city. The inscriptions referring to the cave in this manner are without exception of Roman date.¹⁵ From Strabo we learn¹⁶ that the watch looked "toward Harma" from an altar to Zeus Astrapeus on the wall between the Pythium and the Olympieum. This wall has always been a source of trouble to those who place the Pythium in question near the present Olympieum. But this difficulty vanishes if we accept the authority of Euripides, for the altar of Zeus Astrapeus becomes located on the northwest wall of the Acropolis; and from this lofty position above the Pythium, with an unobstructed view of the whole northern horizon, it is most natural to expect to see these flashes from Harma.

The Olympieum mentioned by Strabo and Thucydides cannot therefore be the famous structure begun by Pisistratus and dedicated by Hadrian; we must look for another on the northwest side of the Acropolis. Here, it must be admitted we could wish for fuller evidence. Pausanias (I. 18. 8) informs us that "they say Deucalion built the old sanctuary of Zeus Olympius." Unfortunately he does not say where it was located.

Mr. Penrose in an interesting paper read before the British School at Athens in the spring of 1891, setting forth the results of his latest investigations at the Olympieum, said that in the course of his investigations there appeared foundations which he could ascribe to no other building than this most ancient temple. But Dr. Dörpfeld, after a careful examination of these remains, declares that they could by no possibility belong to the sanctuary of the legendary Deucalion.¹⁷

¹⁵ HARRISON and VERRALL, *Mythology and Monuments*, p. 541.

¹⁶ STRABO, p. 404.

¹⁷ It has been held that Pausanias mentions the tomb of Deucalion, which was near the existing Olympieum, as a proof that Deucalion's temple was also here. Pausanias however merely says in this passage that this tomb was pointed out in his day only as a proof that Deucalion sojourned at Athens.

The abandonment of work on the great temple of the Olympian Zeus from the time of the Pisistratids to that of Antiochus Epiphanes, would have left the Athenians without a temple of Zeus for 400 years, unless there existed elsewhere a foundation in his honor. It is on its face improbable that the citizens would have allowed so long a time to pass unless they already possessed some shrine to which they attached the worship and festivals of the chief of the gods.

The spade has taught us that the literary record of old sanctuaries is far from being complete. The new cutting for the Piraeus railroad has brought to light inscriptions referring to a hitherto unknown precinct in the Ceramieus.

Mommsen declares¹⁸ that the Olympia were celebrated at the Olympieum which was begun by Pisistratus; and he adds that the festival was probably established by him. Of the more ancient celebration in honor of Zeus, the Diasia, he can only say surely that it was held outside the city. Certainly we should expect the older festival to have its seat at the older sanctuary.

The ἔξω τῆς πόλεως¹⁹, which is Mommsen's authority in the passage referred to above, has apparently the same meaning as the τὰ ἔξω (τῆς πόλεως) already quoted from Thucydides; *i. e.*, outside of the ancient city—the Acropolis and Pelasgicum. The list of dual sanctuaries, the earlier by the entrance to the Acropolis, the later to the southeast, is quite a long one. We find two precincts of Apollo, of Zeus, of Ge, and, as we shall see later, of Dionysus.

Of Ge Olympia we learn²⁰ that she had a precinct within the enclosure of the later Olympieum. Pausanias by his mention of the cleft in the earth through which the waters of the flood disappeared and of the yearly offerings of the honey-cake in connection with this, shows the high antiquity of certain rites here celebrated. It is indeed most probable that these ceremonies formed a part of the Chytri; for what seems the more ancient portion of this festival pertains also to the worship of those who perished in Deucalion's flood. The worship of Ge *Kourotrophos* goes back to times immemorial. Pausanias mentions²¹ as the last shrines

¹⁸ *Heortologie*, p. 418. ¹⁹ THUCYDIDES 126. ²⁰ PAUS. I. 18. 7.

²¹ PAUS. I. 22. 38. SUIDAS, *κουροτρόφος*.

which he sees before entering the upper city, those of Ge *Kourtrophos* and Demeter Chloë, which must therefore have been situated on the southwest slope of the Acropolis. Here again near the entrance to the Pelasgic fortification, is where we should expect *a priori* to find the oldest religious foundations “outside the Polis.”

The location of the fourth *hieron* of Thucydides can best be determined by means of the festivals, more particularly the dramatic festivals of Dionysus. That the dramatic representations at the Greater Dionysia, the more splendid of the festivals, were held on the site of the existing theatre of Dionysus, perhaps from the beginning, at least from a very early period, all are agreed. Here was the precinct containing two temples of Dionysus, in the older of which was the xoanon²² brought from Eleutherae by Pegasus. That in early times, at least, all dramatic contests were not held here we have strong assurance. Pausanias²³ the lexicographer, mentions the wooden seats in the agora from which the people viewed the dramatic contests before the theatre *ἐν Διονύσῳ* was constructed—plainly the existing theatre. Hesychius confirms this testimony.²⁴

Bekker's *Anecdota* include mention, also,²⁵ of the wooden seats of this temporary theatre. Pollux adds²⁶ his testimony that the wooden seats were in the agora. Photius gives the further important information that the orchestra first received its name in the agora.²⁷ There can be no doubt that in very early times, there were dramatic representations in the agora in honor of Dionysus; and there must therefore have been a shrine or a precinct of the god in or close to the agora. The possibility of presentation of dramas at Athens, especially in these early times, unconnected with the worship of Dionysus and with some shrine sacred to him, cannot be entertained for a moment. It is commonly accepted

²² PAUS. I, 2, 5 and I, 20, 8.

²³ PAUS., *Lexikος Ικρα* τὰ ἐν τῇ ἀγορᾷ ἀφ' ὧν ἐθεῶντο τοὺς Διονυσιακοὺς ἀγῶνας πρὶν ἡ κατασκευασθῆναι τὸ ἐν Διωνύσου θέατρον. Cf. EUSTATH. *Comment. Hom.* 1472.

²⁴ HESYCH., ἀπ' αἰγαλέων.

²⁵ BEKKER, *Anecdota* p. 354; *ibid.*, p. 419.

²⁶ POLLUX, VII, 125.

²⁷ PHOTIUS, p. 106; *Ibid.*, p. 351.

that dramas were represented during two festivals in Athens,—at the contest at the Lenaeum and at the City Dionysia. The plays of the latter festival were undoubtedly given in the extant theatre; but of the former contest we have an entirely different record. Harpoeratian says²⁸ merely that the Limnae were a locality in Athens where Dionysus was honored. A reference in Bekker's *Anecdota* is²⁹ more explicit. Here the Lenaeum is described as a place sacred to (*ἱερόν*) Dionysus where the contests were established before the building of the theatre. In the *Etymologicum Magnum*³⁰ the Lenaeum is said to be an enclosure (*περίλαυλος*) in which is a sanctuary of Dionysus Lenaenus. Photius declares³¹ that the Lenaeum is a large peribolus in which were held the so-called contests at the Lenaeum before the theatre was built, and that in this peribolus there was the sanctuary of Dionysus Lenaenus. The scholiast to Aristophanes' *Frogs* says³² that the Limnae were a locality sacred to Dionysus, and that a temple and another building (*οἶκος*) of the god stood therein. Hesychius mentions³³ the Limnae as a locality where the Lenaea were held, and says that the Lenaeum was a large peribolus within the city, in which was the sanctuary of Dionysus Lenaenus, and that the Athenians held contests in this peribolos before they built the theatre. Pollux speaks³⁴ of the two theatres, *καὶ Διονυσιακὸν θέατρον καὶ ληναικόν*. Stephanus of Byzantium quotes³⁵ from Apollodorus that the "Lenaion Agon" is a contest in the fields by the wine-press. Plato implies³⁶ the existence of a second theatre by stating that Pherecrites exhibited dramas at the Lenaeum. If the Lenaea and the City Dionysia were held in the same locality, it is peculiar that in all the passages concerning the Lenaeum and the Limnae we find no mention of the Greater Dionysia. But our list of authorities goes still further. Aristophanes speaks³⁷ of the con-

²⁸ HARP. ed. Dind. p. 114. l. 14.

²⁹ BEKKER, *Anecdota*, p. 278, l. 8.

³⁰ ET. MAG. 'Επ. ΑΙΛηναι.

³¹ PHOTIUS, p. 101.

³² SCHOL. *Frogs*, 216.

³³ HESYCH., Ληναι. · *Ibid.* ἐπὶ Ληναις ἀγῶν.

³⁴ POLLUX, IV. 121.

³⁵ STEPH. BYZ., Ληναιος.

³⁶ PLATO, *Protag.*, 327 w.

³⁷ *Achar.*, 202, and schol.

test κατ' ἀγρούς. The scholiast declares that he refers to the Lenaea, that the Lenacum was a place sacred (*ἱερόν*) to Dionysus, ἐν ἀγροῖς, and that the word *Λήναιον* came from the fact that here first stood the *ληνός* or wine-press. He adds³⁸ that the contests in honor of Dionysus took place twice in the year, first in the city in the spring, and the second time ἐν ἀγροῖς at the Lenaeum in the winter. The precinct by the present theatre, as we know, was sacred to Dionysus Eleuthereus. In this temenus no mention has been found of Dionysus *Λήναιος* or *Λήνιος*.

Demosthenes tells us³⁹ that the Athenians, having inscribed a certain law (concerning the festivals of Dionysus) on a stone stele, set this up in the sanctuary of Dionysus ἐν Ληναῖς, beside the altar. "This stele was set up," he continues, "in the most ancient and most sacred precinct⁴⁰ of Dionysus, so that but few should see what had been written; for the precinct is opened only once every year, on the 12th of the month Anthesterio."

The stele being then visible to the public on but one day of the year it follows that the entire precinct of Dionysus ἐν Ληναῖς

³⁸ *Schol. Aristoph. Achar.*, 504.

³⁹ *Near.* 76.

⁴⁰ I have translated *ἱερό* by precinct. This is liable to the objection that *ἱερό* may also mean temple; and *ἀνοίγεται* "is opened" of the passage may naturally be applied to the opening of a temple. But "hieron" often refers to a sacred precinct, and there is nothing to prevent the verb in question from being used of a "hieron" in this sense. If we consult the passages in which this particular precinct is mentioned we find, in those quoted from Photius and the *Etymologicum Magnum*, that the Lenaeum contains a hieron of the Lenaean Dionysus. This might be either temple or precinct. In the citation from Bekker's *Anecdota* the Lenaeum is the hieron at which were held the theatrical contests. This implies that the hieron was a precinct of some size. The Scholiast to *Achar.* 202 makes the Lenacum the hieron of the Lenaean Dionysus. Here "hieron" is certainly a precinct. Hesych. (*ἐν Ληναῖς ἄνηρ*) renders this still more distinct by saying that the Lenaeum contained the hieron of the Lenaean Dionysus, in which the theatrical contests were held. But Demosthenes in the *Nearea* declares that the decree was engraved on a stone stele. It was the custom to set up such inscriptions in the open air. This stele was also beside the altar. There were indeed often altars in the Greek temple, but the chief altar (*θυμέλε* of the passage) was in the open air. Furthermore, if the decree had been placed in the small temple, the designation "alongside the altar" would have been superfluous. But in the larger precinct such a particular location was necessary. Nor can it be urged, in view of the secret rites in connection with the marriage of the King Archon's wife to Dionysus on the 12th of Anthesterio, that hieron must mean temple; since the new Aristotle manuscript tells us that this ceremony took place in the Bucoleum.

must have been closed during the remainder of the year. This could not be unless we grant that, in the time of Demosthenes at least, the Lenaea and the Megala Dionysia were held in different precincts, and that the Lenaea and Anthesteria were one and the same festival.

Pausanias tells us⁴² that the xoanon brought from Eleutheræe was in one of the two temples in the theatre-precinct, while the other contained the chryselephantine statue of Alcamenes. We know, both from the method of construction and from literary notices, that these two temples were in existence in the time of Demosthenes. Pausanias says⁴³ that on fixed days every year, the statue of the god was borne to a little temple of Dionysus near the Academy. Pausanias' use of the plural in *τεταγμέναις ἡμέραις* is excellent authority that the temple of the xoanon was opened at least on more than one day of every year.

From all these considerations it seems to be impossible that the precinct of the older temple by the extant theatre and the sanctuary *ἐν Λύκαιοις* could be the same. The suggestion that the gold and ivory statue of Alcamenes could have been the one borne in procession at the time of the Greater Dionysia is, of course, untenable from the delicate construction of such figures. The massive base on which it stood shows, too, that its size was considerable. The image borne in procession was clearly the xoanon which was brought by Pegasus from Eleutheræe.

Wilamowitz calls attention⁴⁴ to another fact. In classic times the contests of the Lenaea are *Διονύσια τὰ ἐπὶ Ληρναῖφ,* and the victories are *νίκαι Ληρναϊκαῖ;* the Megala Dionysia are always *τὰ ἐν ἀστεῖ,* and the victories here *νίκαι ἀστικαῖ.* These words certainly imply a distinction of place. How early these expressions may have been used, we learn from the account of Thespis. Suidas⁴⁵ is authority that Thespis first exhibited a play in 536 b. c.; and the Parian Marble records⁴⁶ that he was the first to exhibit a drama and to receive the tragic prize *ἐν ἀστεῖ.*

⁴² I. 20. 3.

⁴³ I. 29. 2.

⁴⁴ *Die Bühne des Aeschylus.*

⁴⁵ *v. Thespis.*

⁴⁶ *C. I. G., II. 2374.*

But it has also been contended that Limnae and Lenaeum do not refer to the same locality. It is clear from what has been said, however, that the Lenaea and the Greater Dionysia must have been held in different localities. So if Limnae and the Lenaeum do not refer at least to the same region, there must have been three separate sanctuaries of Dionysus; for no one will claim that the Greater Dionysia can have been held in the Limnae if the Lenaea were not celebrated there. But as we have seen, Hesychius (v. *Ληναῖς*) declares that the Lenaea were held *ἐν Ληναῖς*. The scholiast to Aristophanes says⁴⁶ that the Chytri were a festival of Dionysus Lenaeus; so the Chytri as well as the Lenaca must have been celebrated in the Lenaeum. Athenaeus in the story of Orestes and Pandion speaks⁴⁷ of the tenenus *ἐν Ληναῖς* in connection with the Choes. In Suidas (*χοες*), however, we learn that either Limnaeus or Lenaeus could be used in referring to the same Dionysus. Such positive testimony for the identity of the Lenaeum and the sanctuary in the Limnae, cannot be rejected.

We have still more convincing testimony that in the great period of the drama the two annual contests at which dramas were brought out were held in different places, in the record of the time when the wooden theatre *ἐν Ληναῖς* was finally given up, and *δὲ ἐπὶ Ληναῖς ἀγῶν* became a thing of the past. The change comes exactly when we should look for it, when the existing theatre had been splendidly rebuilt by Lycurgus. The passage is in Plutarch, where he says⁴⁸ that this orator also introduced a law that the contest of the comedians at the Chytri should take place in the theatre, and that the victor should be reckoned *εἰς ἄστυ*, as had not been done before. He further implies that the contest at the Chytri had fallen into disuse, for he adds that Lycurgus thus restored an agon that had been omitted. This last authority, however, concerns a contest at the Chytri, the Anthesteria, and is only one of many passages which tend to show that *δὲ ἐπὶ Ληναῖς ἀγῶν* was held at this festival. The most weighty testimony for making the Lenaea an independent festival, even in historic times, is given by Proclus in a scholium to Hesiod.⁴⁹ He

⁴⁶ *Ach.* 960. ⁴⁷ X, 437 d.

⁴⁸ [Plut.] *Vit. 10 Or.* Lycure. *Orat. vii.* 1. 10 p. 841.

⁴⁹ Proclus to Hesiod, *Op.* 504.

quotes from Plutarch the statement that there was no month Lenaeo among the Boeotians. He adds that this month was the Attic Gamelio in which the Lenaea were held. Hesychius makes the same citation from Plutarch⁵⁰ as to a non-existence of a Boeotian month Lenaeo, and continues: "But some say that this month is the (Boeotian) Hermaio, and this is true, for the Athenians [held] in this month (*ἐν αὐτῷ*) the festival of the Lenaea." The great similarity of the two passages renders it very probable that both were drawn from the same sources. The omission of Gamelio by Hesychius, by referring the *ἐν αὐτῷ* back to Lenaeo, makes him authority that the Lenaea were held in that month. This, in turn implies that Proclus may have inserted Gamelio in order to bring the statement into relation with the Attic months of his own day. In the authorities referring to this month is a suggestion of several facts and a curious struggle to account for them. Proclus cites Plutarch to the effect that there was no month Lenaeo among the Boeotians, but, being probably misled by the very passage in Hesiod for which he has quoted Plutarch, he adds⁵¹ that they had such a month. He goes on to state that the month is so called from the Lenaea, or from the Ambrosia. Moschopulus,⁵² Tzetzes,⁵³ and the Etymologicum Magnum⁵⁴ repeat this last statement. An inscription⁵⁵ referring to a crowning of Bacchus on the 18th of Gamelio may refer to the same festival. Tzetzes alone is responsible for the statement that the *Pithoigia* came in this month. Through Proclus and Hesychius we are assured of the belief that there was once an Attic month Lenaeo. Proclus, Hesychius and Moschopulus tell us that the Lenaea were at some period held in this month; while Proclus, Moschopulus, Tzetzes, and the inscription assure us that there was another festival of Dionysus in this month; and the first three of these authorities name this festival Ambrosia. A tradition running with such persistency through so many authors affords a strong

⁵⁰ HESYCHIUS, Ληραιῶν μῆν.

⁵¹ PROCLUS, To Hesiod Op. 504.

⁵² MOSCHOPUL., κατὰ τὸν μῆνα τὸν Ληραιῶνα.

⁵³ TZETZES, μῆνα δὲ Ληραιῶν.

⁵⁴ Et. Mag., Ληραιῶν.

⁵⁵ C. I. G., i. 528. Γαμηλιώνος καττάσεις Διονύσου θι.

presumption that there once existed an Attic month Lenaeo, and that the Lenaca were celebrated in that month.

Thucydides tells us⁵⁶ that the Ionian Athenians carried the festival Anthesteria with them from Athens, and that they continued until his day to celebrate it. The Anthesteria are thus older than the Ionic migration, which took place under the sons of Codrus.⁵⁷ The story of Pandion and Orestes from Apollodorus places the establishment of the Choes in the time of this mythical Athenian king. The first and third months of the Ionic year⁵⁸ are the same as those of the Attic. There can hardly be a doubt, then, that their second month, Lenaeo, was also carried with the emigrants from the parent city, where at that time it obtained.

This gives a time, however remote it may be, when the Athenians still had the month Lenaeo, yet we hear of no festival Lenaca among the Ionic cities. It would thus seem that this had lost its force as an independent festival before the migration.

Gamelio is said to have received its name from the Gamelia, the festival of Zeus and Hera. It is hard to believe that while the much more brilliant Lenaca remained in the month, the name

⁵⁶ II. 15.

⁵⁷ BOECKH, *Vom Unterschied der Lena., Anthest. und Dion.* s. 52.

⁵⁸ The entire argument on the question of the month is open to the objection that too much weight is given to such men as Tzetzes and all the tribe of minor scholars, whose opportunities for accurate knowledge were, in many respects, vastly inferior to those of scholars of our own day. It is easy indeed to say that their testimony is worth nothing. But where shall we stop? It is urged that the connection of the Lenaca with an Attic month Lenaeo arose from an attempt on the part of the commentators to explain names as they found them. It is said that this conflict of the authorities proves that there never was an Attic Lenaeo. This may be true; and the man who will prove it to be so, and furthermore will give us the accurate history of the Attic and the Ionic calendars, will do a great service to Greek scholarship. But he must have at hand better sources than we possess to-day. Though the later Greek commentators on the classics have made many amusing and stupid blunders, though we need not hesitate to disregard their teaching when it comes into conflict with better authority, or with plain reason, still they have told us that which is true. They often furnish us with all that we know of older and better authors, whose works were their authority. Therefore, unless I have found testimony against them, I have followed their teaching. Both here and elsewhere I give their words for what they are worth; not that I rank Proclus with Thucydides, or the Et. Mag. with Aristophanes,—but from the conviction that so remarkable a concurrence of testimony in so many different writers has not yet been successfully explained away, and could not indeed exist unless their testimony were founded on a basis of fact.

should have passed to the always somewhat unimportant Gamelia. What reason could be found for this naming, unless that the Lenaca had first been transferred to the Anthesteria, as all the testimony tends to prove? This supposition gives an easy explanation of the repeated reference to Lenaean as an Attic month, of the change of the name to Gamelio, and even Tzetzes' association of the Pithoigia with the Lenaea,—an association which arises necessarily, if the Lenaea once formed part of the Anthesteria. The impossibility of transferring in its entirety a festival which has become rooted in the customs of a people, is also seen. That remnant of the Lenaea in Lenaean, the Ambrosia, survived till quite late in Attic history. It is not difficult, then, to understand why the other references to the Lenaea as a separate festival do not agree as to the month.

A triad of contests is given by Demosthenes⁵⁹ where he quotes the law of Eugeoros with reference to the Dionysiac festivals: the one in Piraeus with its comedies and tragedies, *ἡ ἐπὶ Ληναῖο πομπή* with its tragedies and comedies, and the City Dionysia with the chorus of boys, procession, comedies and tragedies. Here are three different contests in three different places; and the Anthesteria and Lenaea are included under *ἡ ἐπὶ Ληναῖο πομπή*. The purpose of the law was to preserve absolute security and freedom to both person and property on the days of the festivals named. Not even an overdue debt could be collected. In so sweeping a law the Anthesteria could hardly fail to be included; for at no Attic festival was there more absolute liberty and equality. In Suidas⁶⁰ we learn that the revellers at the Chytri, going about on carts, jested and made sport of the passers by, and that later they did the same at the Lenaea. Thus he gives another proof of the connection between the two festivals, and shows that *ὁ ἐπὶ Ληναῖο ἀγῶν* became a part of the older Anthesteria after the invention of comedy, and that even then the old custom was kept up. In Athenaeus we find⁶¹ the Samian Lynceus sojourning in Athens and commiserated as passing his time listening to the lectures of Theophrastus and seeing the Lenaea and Chytri, in

⁵⁹ *Mid.* 10.

⁶⁰ SUIDAS, *ἐκ τῶν ἀμετόν σῶματα.*

⁶¹ ATHENAEUS, IV. p. 130.

contrast to the lavish Macedonian feasts of his correspondent. The latter in the same connection says⁶² that certain men, probably players, who had filled a part in Athens at the Chytri, came in to amuse the guests. The marriage which he is attending then took place after the Chytri. It is not likely, therefore, that in "the Lenaea and Chytri" he is referring to two festivals separated by a month of time. He speaks, rather, of two acts of the same celebration.

The frogs in Aristophanes claim the temenus ἐν Αἴγαροι and speak of their song at the Chytri. The scholiast cites⁶³ Philochorus, saying that the contests referred to were the χύτριοι.

A suspected passage in Diogenes Laertius declares (III 56) that it was the custom to contend with tetralogies at four festivals, the Dionysia, Lenaea, Panathenaea, and Chytri. If the passage is worth anything, it adds new testimony that there were dramatic representations at the Anthesteria. The Menander of Alciphron, also, would hardly exclaim⁶⁴ over πολούς χύτρους, unless the contest were one in which he, as dramatist, could have a part.

No other of the extant dramas has been so much discussed in connection with the question as the *Acharnians*. Those who hold that the Lenaea and Anthesteria were entirely separate, have affirmed that the play opens on the Pnyx in Athens, that the scene changes to the country-house of Dicaeopolis in Cholleidae, at the season of the country Dionysia in the month Posideo. Later the time of the Lenaea in the month Gamelio is represented. Finally the locality is again Athens at the Anthesteria in Anthesterio. In fact, we are told, the poet has, in the *Acharnians*, shown his true greatness by overleaping all restraints of time and place and giving his fancy free rein. But this is making the *Acharnians* an isolated example among the Greek plays which have come down to us. Changes of scene are foreign to the nature of the Greek drama, as is acknowledged by A. Müller.⁶⁵

That the beginning of the play is on the Pnyx, there is no question. In v. 202, Dicaeopolis declares: "I will go in and

⁶² Ibid. III. 129.

⁶³ Schol. ARIST. *Frogs.* 218.

⁶⁴ *Alciphron Ep.* II. 8. 11.

⁶⁵ *Bühnenalt.*, 161.

celebrate the Country Dionysia." This is held to be a statement of the actual time of year represented in this portion of the play, and also to indicate the change of place from Athens to the country. That the country festivals to the wine-god in the different demes were held on different dates, we learn from the fact that companies of actors went out from Athens to make the tour of these provincial festivals.⁶⁶ We know, too, that these rural celebrations were under charge of the demarchs.⁶⁷ In the passage from the *Acharnians* just cited, there is no statement that this is the season when the demes were accustomed to hold their annual Bacchic celebrations. Rather, in his joy in his newly concluded peace, the hero declares that he will *now* hold this festival in honor of the god of the vine. No surprise is felt at this exceptional date, particularly as, by his statement below,⁶⁸ he has been prevented for six years from holding the festival at its proper season. This last passage, however, is the strongest authority for a change of place in the action. Certainly, if the reading is correct, in the light of all the remainder of the comedy we should naturally translate: "in the sixth year, having come into my deme, I salute you gladly." But we do no violence to the construction if we say that *ἀλθῶν ἐς τὸν δῆμον* means "going (*forth*) to my deme." Unquestionably up to the end of the first choral ode at v. 236, the action has gone on in Athens. But here, we are told, comes the change of place. In v. 202 Dicaeopolis has declared that he is "going in." What does he enter but his house in the city? At v. 236 the chorus also is in Athens. In v. 237, the voice of Dicaeopolis is heard from within—his *country* house, it is said; and in v. 238 the chorus is as suddenly before this same house! Such rapid changes might easily take place on a modern stage, but are of a character to excite remark in an ancient theatre. If there was a change here, the second scene must have represented Cholideae with the three houses of Dicaeopolis, Lamachus, and Euripides; and the three must be in the same deme; for the Bacchic procession of Dicaeopolis appears at v. 241, and is broken up by the chorus at v. 280. As soon as Dicaeopolis, by his by-play, has

⁶⁶ HAIGH, *Attic Theatre*, p. 47.

⁶⁷ OEHMICHEN, *Bühnenwesen*, s. 195.

⁶⁸ *Achar.*, 286 f.

obtained permission to plead his cause, he turns (v. 394) to the house of Euripides to borrow the wardrobe of one of the tragic heroes. Then, when his defense has divided the chorus, the first half call upon the gorgon-helmeted Lamachus (v. 566) to bear them aid, and that warrior appears from his house.

Now the common enemy has prevented the celebration of the Country Dionysia for six years. How is it possible, under such circumstances, to conceive of Euripides as composing tragedies in the country? How could the general Lamachus be living out of the city in such a time of danger? Certainly the play itself gives us authority that this scene also is in Athens. At v. 241 Dicaeopolis would go forth with his procession to hold the rural Dionysia in his deme. Prevented from doing so, he is from this on busy with the duties and pleasures of the Choes. His alteration with the chorus and with Lamachus ended, he (v. 623 f.) announces that he will open a market for all Boeotians, Megarians, and Peloponuesians. He sets up (v. 719) the bounds of his markets, and appoints three "himantes" as agoranomi. These officials are suggestive of those busy at the Anthesteria.⁶⁰ The first customer, from Megara comes in with: "Hail, agora in *Athens*" (v. 729), and brings for sale pigs suitable for sacrifice at the Mysteries (v. 747 and 764). The Lesser Mysteries came in Anthesterio first after the Anthesteria.

There is no change of place in the course of the action. The scene, the Pnyx with the houses of Dicaeopolis, Lamachus, and Euripides near by, remains the same. There is no indication of a jump in time from Posideo to Gamelio, and again from Gamelio to Anthesterio.

Amid all the preparations for the Anthesteria made in the play, two statements cannot fail to attract attention. In v. 504 f. the poet informs us that this is not the Greater Dionysia, when strangers, tribute-bearers, and allies were present. It is the contest at the Lenaeum. In v. 1150 f. the chorus frees its mind concerning the miserly fashion in which Antimachus treated them at a previous celebration of the Lenaea. Shall we say that the poet, in order to speak of things present before the eyes of the Athen-

⁶⁰ MOMMSEN, *Heortologie v. Anthesteria*.

ians, steps, in these two passages, entirely outside the action of the play? By no means. The poet is dealing with a vital issue. He is fighting against the ruinous war. The power of his genius is shown by the masterly manner in which he uses the moment which was present to his hearers. The victor at the Choes sat among the spectators; the very walls of the theatre had hardly ceased to resound with the din of the carousers. Here, or elsewhere, there is mention of but one *ἐπὶ Ληναῖς ἀγῶν*, that is the Lenaea, or the dramatic contest at the Anthesteria.

In fixing the date of the "Dionysia at the Lenaeum," we have the authority of some interesting inscriptions which have been collected in Dittenberger S. I. G. II. 374. They are the record of moneys obtained from the sale of the hides of the victims sacrificed at various festivals of the Attic year. A portion of each of four separate lists has been preserved. In the first and fourth of these, as they stand in Dittenberger, three Dionysiac festivals are mentioned: that at Piraeus, the Dionysia *ἐν ἄστει*, and the Dionysia *ἐπὶ Ληναῖς*. The third list ends with the Dionysia in Piraeus. The remaining inscription mentions two Dionysiac festivals, the one at the Lenaeum, and that *ἐν ἄστει*. The part of the record which should cover the Dionysia at Piraeus is wanting. The calendar order of all the festivals mentioned is strictly followed.

Köhler in *C. I. A.*, led by the other inscriptions found with these four, says that the lists do not contain mention of all the festivals at which public sacrifices of cattle were made in that portion of the year covered by the inscriptions, but that these are to be considered only as records of the hide-money which was to be devoted to particular uses. As a matter of fact, however, nearly all the public festivals of importance, as well as some of less note, are included in these lists; and it would be difficult to demonstrate that they do not contain a complete record of the public hide-money for the portion of the year in which these festivals fall.

In these inscriptions the peculiarity with reference to the Dionysia is the same which we find in all other accounts which seem to give a complete record of these festivals. Only three are mentioned as held under public authority. Did the omission of

the Lenaea and Anthesteria occur only in this case, we might, following Köhler, admit that the hide-money from this particular festival was not devoted to this special purpose, and that for this reason the name did not appear in these records. But since in no case are there more than three mentioned; and since the third name is one which covers all celebrations in honor of Dionysus at the Lenaeum, this assumption cannot be granted. The important point, and one that cannot be too strongly emphasized, is that neither in these nor in any other inscription or official record is there any mention of the Lenaea or Anthesteria as such. The official language appears always to have been, as here: *Διονύσια ἐπὶ Ληναῖῳ*, or: *ἡ ἐπὶ Ληναῖῳ πομπή*, or, where the dramatic contest alone was intended: *ὁ ἐπὶ Ληναῖῳ ἄγων*. Once only in the 5th century⁷⁰ do we find *Ληναῖα* used; and here it is synonymous with *ὁ ἐπὶ Ληναῖῳ ἄγων*. Wilamowitz has well said that *Ληναῖα* as a name of a separate festival is an invention of the grammarians. Aristophanes, in the passage from the *Acharnians*, shows that this name may have been used commonly for the dramatic contest at the Lenaeum, and we know from Thucydides that Anthesteria was also used of the entire festival. It is impossible that in a record like the hide-money inscriptions, the official title *Διονύσια ἐπὶ Ληναῖῳ* should be employed to cover two festivals separated by an interval of a month.

But was the Anthesteria a state festival, at which public sacrifices of cattle were made? The story of its institution by Pandion shows that it was public from the beginning. Aristophanes informs us⁷¹ that it maintained this character; for the Basileus awarded the prize at the Choes. The question of sacrifice requires fuller treatment.

Suidas⁷² and a scholiast⁷³ to Aristophanes quote from Theopompus the story of the establishment of the Chytri. On the very day on which they were saved, the survivors of the flood introduced the celebration of this day of the Anthesteria by cooking a potful of all sorts of vegetables, and sacrificing it to the

⁷⁰ *Acharnians*, 1155.

⁷¹ *Acharnians*, 1225.

⁷² SUIDAS, *χότραι*.

⁷³ Schol. ARISTOPH., *Frogs*, 218.

Chthonian Hermes and those who had perished in the waters. The scholiast adds that sacrifice was offered to no one of the Olympian gods on this day.

In Suidas we find a hint of the other ceremonies on the Chytri. According to him, there were sacrifices to Dionysus as well as to Hermes. This suggests that the Chytri was but one day of the Anthesteria, and, though the worship of the departed may have been the older portion of the celebration, it was later overshadowed by the festivities in honor of the wine-god. As the text of his argument in his oration against Midias, Demosthenes cites four oracular utterances, two from Dodona, the others probably from Delphi. In the first the god calls upon the children of Erechtheus, as many as inhabit the city of Pandion, to be mindful of Bacchus, all together throughout the wide streets to return fit thanks to the Bromian, and crowned with wreaths, to cause the odor of sacrifice to rise from the altars. In this oracle, Athens is the city of Pandion, because it was reported that under his rule the worship of Dionysus was introduced into the city. This and the other commands from Dodona and Delphi concerning Dionysus refer to the introduction of the worship of the god; for in every one the statement is absolute; there is no reference to a previous worship and a backsiding on the part of the people. *κυντᾶν βωμοῖσι* of the first oracle can refer only to a sacrifice of animals. Stronger still is the statement in the fourth oracle (from Dodona) where the command is given to fulfil sacred rites (*ἱερὰ τελεῖν*) to Dionysus, and to sacrifice to Apollo and to Zeus. (*Ἀπόλλωνι Ἀποτροπαῖς
βοῦν θύσαι . . . Διὶ Κητστρῷ βοῦν λευκόν.*) The command "to mix bowls of wine and to establish choral dances," in the second and fourth oracles, serves as an explanatory comment on "return fit thanks to the Bromian" in the first. "Let free men and slaves wear wreaths and enjoy leisure for one day," must refer to the Pithoigia. In this feast the slaves had a part, and enjoyed a holiday. Hence the saying⁷⁴ "Forth, slaves, it is no longer the Anthesteria." In obedience to the oracles then, public sacrifices could not have been lacking at the Anthesteria. Therefore, this festival must have been officially known as the *Dionysia ἐπὶ Ληγαλῷ*.

⁷⁴ θύραὶς Κάρες οὐκέτ' Ἀνθεστήρια.

The dramatic contests at the Lenaeum, like those at the Greater Dionysia, were undoubtedly preceded by sacrifices. The ἀγῶν ἐπὶ Ληναῖο could hardly be separated from the Dionysia ἐπὶ Ληναῖο. Therefore the hide-money inscriptions are also authority that Lenaea and Anthesteria are but two references to the same festival.

Thucydides, as we have seen,⁷⁵ knew of but two Dionysia in Athens itself; those ἐν ἄστει and the Anthesteria. Of these, using the comparative degree, he states that the latter were the ἀρχαιότερα. In his time the dramatic contests ἐν Λίμναις were in their glory, yet he mentions but one celebration in this locality. So here also we must conclude that Anthesteria was the name of the whole festival which Harpocration tells us was called πιθούα, χοές and χύτραι; that there was, in the flourishing period of the drama, no separate festival Lenaea, but that the ἀγών at the Chytri came to be so called to distinguish it from that at the City Dionysia.

It is interesting in connection with Thucydides' statement that the Ionian Athenians in his day still held the Anthesteria, to examine the record of this festival in the Ionic cities of Asia Minor. To be sure we have very little information concerning the details of this celebration among them; but we do find two statements of importance. *C. I. G.* 3655 mentions certain honors proclaimed at the Anthesteria in the theatre in Cyzicus. Comparison with similar observances at Athens indicates that theatrical representations were to follow. *C. I. G.* 3044, τώγῶνος Ἀνθεστηριοῖσιν, refers to Teos. From the constant use of ἀγῶν referring to theatrical performances in connection with the festivals of Dionysus the word can hardly mean anything else here. So these two inscriptions, referring to two colonies, add their testimony that dramas were presented also at the Anthesteria in Athens.

Finally, Aristotle's *Politeia* falls into line with the hide-money records. In § 56, the statement is made that the Archon Eponymos had the Megala Dionysia in charge. In the following section, the Archon Basileus is said to have control, not of the Lenaea or of the Anthesteria—for neither is mentioned by name,—but of the Dionysia ἐπὶ Ληναῖο. The Basileus and the Epimeletae together directed the procession; but the basileus alone controlled the

[dramatic] contest. Here again, it is inconceivable that either Anthesteria or Lenaea should be omitted; so both must be included under Dionysia *ἐπὶ Ληναῖς*.

We thus find our position supported by inscriptions of undoubted authority, and by a list of names ranging in time from before Aristophanes to the 9th century A. D., and in weight from Thucydides and Aristotle to the Scholiasts.

If the Limnae were not by the existing theatre of Dionysus, where were they? Not on the south side of the Acropolis, as a careful examination of the ground proves. In our study of the theatre-precinct, we found that the earth here in antiquity was at a much higher level than at present, while immediately outside the wall of this precinct to the south, the ground was considerably lower than it is now. The present height of the theatre-precinct is 91.4 m. above the sea level; of the Odeum, 97.7 metres; of the Olympieum, 80.8 m.; of the ground within the enclosure of the Military Hospital due south from the theatre, 75 m.; of Callirhoe in the Ilissus opposite the Olympieum, 59 m.; of the Ilissus bed opposite the theatre, 50 m. From the present level of the theatre to the bed of the stream there is a fall of more than 41 m.; the fall is about equally rapid along the entire extent of the slope to the south of the Acropolis, while the soil is full of small stones. Surely, it would take more than the oft-cited handful of rushes to establish a swamp on such a hillside. We have, however, excellent geological authority that from the lay of the land and the nature of the soil, there never could have been a swamp there. The Neleum inscription⁷⁶ can be held to prove nothing further than that, as Mr. Wheeler suggests, the drain from the existing theatre ran through this precinct. We must therefore seek the Limnae elsewhere.

We know that from time immemorial the potters plied their trade in the Ceramicus, because here they found the clay suitable for their use. The so-called Theseum is 68.6 m. above the sea-level; the present level at the Piraeus railroad station, 54.9 m.; at the Dipylum (and here we are on the ancient level), only 47.9 m. Out beyond the gate comes a long slope, extending till the Ce-

⁷⁶ Am. Journal of Archaeology, III. 38-48.

phissus is reached, at an elevation of 21 m. So the Dipylum is over 43 m. below the present level of the theatre-precinct; and it is the lowest portion of the ancient city. Here, therefore, in the northwest part of the city, is where we should expect from the lay of the land and the nature of the soil to find the marshes. Out in the open plain beyond this quarter of the city to-day, after every heavy rain, the water collects and renders the ground swampy. With the Dipylum as a starting-point, there is no difficulty in supposing that, in very ancient times, the Limnae extended to Colonus Agoraens, to the east into the hollow which became a portion of the agora in the Ceramicus, and to the west into the depression between Colonus Agoraeus and the Hill of the Nymphs. The exact extent and character of the low ground in these two directions can only be determined by excavating the ancient level, which, as it appears to me, has not been reached by the deep new railroad cutting running across this section north of the so-called Theseum.

The excavations of Dr. Dörpfeld between Colonus Agoraeus and the Areopagus, have shown that the ruins and the ancient street at this point have been buried to a great depth by the débris washed down from the Pnyx. Unfortunately, these diggings have not been extensive enough to restore the topography of the west and southwest slopes of Colonus Agoraeus.

We have abundant notices, besides those already given, of a precinct or precincts of Dionysus in this section. Hesychius speaks⁷⁷ of a house in Melite where the tragic actors rehearsed. Photius repeats⁷⁸ the statement almost word for word. Philostatus mentions⁷⁹ a council-house of the artists near the gate of the Ceramicus. Pausanias (I. 2. 5), just after entering the city, sees within one of the stoas the house of Poulytion which was dedicated to Dionysus Melpomenus. He speaks next of a precinct with various ἀγάλματα, and among them the face of the demon of unmixed wine, Cratus. Beyond this precinct was a building with images of clay, representing, among other scenes, Pegasus, who brought the worship of Dionysus to Athens. This building

⁷⁷ HESYCH. Μελιτέων οἶκος.

⁷⁸ PHOTIUS, Μελιτέων οἶκος.

⁷⁹ PHILOST. Vit. Soph. p. 251.

also was plainly devoted to the cult of the wine-god. In fact, the most venerable traditions in Athens, with reference to Dionysus, centre here. All the various representations here are connected with the oldest legends. Pausanias (I. 3. 1.) says that the Ceramicus had its very name from Ceramus, a son of Dionysus and Ariadne.

We have already seen that an orchestra was first established in the agora. Timaeus adds⁸⁰ that this was a conspicuous place where were the statues of Harmodius and Aristogiton, which we know to have stood in the agora.

The scholiast to the *De Corona* of Demosthenes⁸¹ says that the "hieron" of Calamites, an eponymous hero, was close to the Lenaeum. Hesychius words this statement differently, saying that [the statue of] the hero himself was near the Lenaeum. We know that the statues of eponymous heroes were set up in the agora. Here again the new Aristotle manuscript comes to our support, telling us (*Pol. c. 8*) that the nine archons did not occupy the same building, but that the Basileus had the Bucoleum, near the Prytaneum, and that the meeting and marriage of the Basileus' wife with Dionysus still took place there in his time. That the Bucoleum must be on the agora, and that the marriage took place in Limnaean-Lenaeian territory, have long been accepted. The location of the Limnae to the northwest at the Acropolis must thus be considered as settled.

Dr. Dörpfeld maintains that the ancient orchestra and the later Agripeum theatre near by, mentioned by Philostratus,⁸² lay in the depression between the Pnyx and the Hill of the Nymphs, but considerably above the foot of the declivity.

From the passage of the *Neaera* quoted above we know that the old orchestra could not have been in the sacred precinct of Dionysus Limnaeus, for this was opened but once in every year, on the 12th of Anthesterio,⁸³ while the Chytri and therefore ὁ ἐπὶ Αγραίῳ ἀγών were held on the following day. This involves too that the Pithoigia as well as the "contests at the Lenaeum" could

⁸⁰ TIM. *Lex. Plat.*

⁸¹ DEMOS. *de Corona*, 129, scholium.

⁸² PHILOSTRATUS, *Vit. Soph.*, p. 247.

⁸³ See also THUCYDIDES above.

not have been celebrated in the sanctuary *ἐν Λίμναις*, though portions of each of these divisions of the Anthesteria were held in the Lenaeum, which contained the Limnaea *hieron*.

The Lenaeum must lie *ἐν Λίμναις*, and therefore on the low ground. A passage in Isaeus (8. 35) is authority that the sanctuary of Dionysus *ἐν Λίμναις* was *ἐν ἀστει*; *i. e.*, within the Themistoclean walls. So we have it located within narrow limits, somewhere in the space bounded on the east by the eastern limit of the agora in Ceramicus, south by the Areopagus, west by the Pnyx and the Hill of the Nymphs, and north by the Dipylum.

From the neighborhood of the Dionysiac foundations and allusions mentioned by Pausanias immediately upon entering the city, we may be justified in locating this ancient cult of Dionysus *ἐν Λίμναις* still more exactly, and placing it somewhere on or at the foot of the southwestern slope of Colonus Agoraeus. More precise evidence of its site we may obtain from future excavation; though as this region lay outside the Byzantine city-walls, the ruins may have been more or less completely swept away.

In view of its position outside of the gate of the ancient Pelasgic city, by the wine-press, we understand why the contest in the Lenaeum was called a contest *κατ' αγρούς*. Because enclosed later within the walls of Themistocles, the Limnae were also referred to as *ἐν ἀστει*. Situated as they were in the territory of the agora, we see why, although the Archon Eponymus directed the City Dionysia, the Archon Basileus presided⁸⁴ over the Anthesteria, and therefore over "the contest at the Lenaeum"; and the agoranomi, the superintendents of the market-place, whose duties were confined to the agora, *ἐπετέλεσαν τοὺς χύτρους*.⁸⁵

In closing, it may not be without interest to review the picture presented of the most ancient Athens. Behind the nine-gated Pelasgic fortifications lay the city, with its temples, its palace, "the goodly house of Erechtheus," and its dwellings for the people, remains of which can even now be seen within the Pelasgicum. Immediately without the gate stood the Pythium, the Olympieum, the temple of Ge *Kouratrophos*, and other foundations. Directly

⁸⁴ POLLUX VIII. 89, 90. (ARISTOT. Ἀθην. Πολιτεῖα.)

⁸⁵ MOMMSEN, *Heortologie*, p. 352 note.

before the entrance, some two hundred paces from the city-walls, was the spring Enneacrounus, whose water was most esteemed by the citizens. Not far from this was the wine-press. Here the people built the first altar, the first temple, the first orchestra, and instituted the first festival in honor of the wine-god, long before the new Dionysian cult was brought in from Eleutheræ; and here for centuries were raised every year about the orchestra tiers of wooden seats in preparation for the annual dramatic contests.

JOHN PICKARD,
American School of Classical Studies,
Athens, 1891.

CORRESPONDENCE.

HUNTING DELLA ROBBIA MONUMENTS IN ITALY.

To the Managing Editor of the American Journal of Archaeology:

Dear Sir: Having made a special study of the altarpiece by Andrea Della Robbia in the Metropolitan Museum, New York, my desire was aroused to examine all the glazed terracotta sculptures of the Della Robbia school, which form such an important part of Italian Renaissance sculpture. So I sailed for Italy on the 6th of last May, taking with me a good camera and a sufficient number of celluloid films, knowing beforehand that there were many of these monuments which had never been photographed and were consequently imperfectly known. An investigation of this character, which takes one over the mountains and into the valleys, from one end of Italy to the other, may well be described as a hunting expedition; and, though requiring severe labor and constant sacrifices, has in it a considerable element of sport. Although Dr. Bode, of Berlin in various writings has shown a more discriminating knowledge of this subject than other writers, nevertheless the work of Cavallucci and Molinier, *Les Della Robbia*, was more useful to me as a guide and starter. They had catalogued as many as 350 of these monuments in Italy, and briefly described them. But their attributions were uncertain. Prof. Cavallucci told me in Florence that unless he had a document in hand indicating the authorship of a monument he felt great hesitation in making attributions. And I could see, the more I studied his work, that he considered it more important to discover documents than to observe monuments. Here then was a great opportunity to see a large series of monuments, to compare them and allow them to tell their own story in regard to their origin. Having with the aid of geographical dictionaries and government maps located these 350 monuments, I made up my mind to see as many of them as possible. This was no easy task, as they were widely distributed and, as I progressed, the number of uncatalogued monuments constantly increased. I can give here but a bare outline of my trip. Starting at Genoa, I went to Massa and Pisa and Lucca; from Lucca following the valley of the Serchio as far north as Castelnuovo. Here

I found a fine series of unphotographed monuments, and began to learn that works of the same author and period are very likely to be found in neighboring towns, especially when lying along a valley. Similarly, starting from Pracchia above Pistoia I studied another series of unphotographed monuments at Gavinana, Lizano and Cutigliano. These monuments may prove to be of importance in solving the problem of the authorship of the celebrated Pistoian frieze.

At Prato the monuments of this class have been photographed, and are well known. Florence and its immediate surroundings contain the most important works of Luca and of Giovanni Della Robbia, but is very poor in examples of Andrea Della Robbia. Hence the Florentines have a very inadequate notion of Andrea's work, which must be studied at Arezzo, La Verna, Prato, Siena and Viterbo. At Florence I was fortunate enough to find an unpublished document ascribing one of the medallions at Or San Michele to Luca Della Robbia. Two of these medallions by the elder Luca had never been photographed before, but have now been taken by Alinari. So far as I know, the monuments at Impruneta, ten miles from Florence, are unknown to students of this subject. Three of them have been photographed by Brogi, who gives no attributions. They are not mentioned by Cavallucci nor by Dr. Bode; yet they are amongst the very finest works by Luca Della Robbia. In the private collection of the Marquis Frescobaldi I recognized a fine Luca Della Robbia, and in that of the Marquis Antinori an excellent example of Giovanni's work. Less important discoveries made in this region are too numerous to mention. At Empoli, not many miles from Florence, are several uncatalogued monuments and a fine example of a tile pavement, which I identified as Della Robbia work. I then visited Poggibonsi and Volterra and Siena, and satisfied myself that the beautiful coronation of the Virgin at the Osservanza outside Siena is a *chef-d'œuvre* of Andrea Della Robbia. From Asciano I visited Monte San Savino, Lucignano and Foiano and took photographs of some fine, unrecognized works of Andrea Della Robbia. Another starting point was Montepulciano for a long drive to Radicofani, a weird Etruscan site, whose churches contained half a dozen unphotographed Della Robbins, then to S. Fiora, whose monuments have a greater reputation than they deserve, to S. Antimo, a fine Cistercian ruin, and Montalcino. At Perugia I photographed the monuments of Benedetto Buglione, thus laying the basis for a study of his works, a number of which may now be identified. In the case of his pupil, Santi Buglione, I was less successful, as the chapel at Croce dell'Alpe, which contained two authenticated altarpieces of his seems to have disappeared, not only

from sight, but from the memory of the inhabitants of the neighborhood. So the reconstruction of his style involves a wider stretch of the scientific imagination. At Acquapendente I found a unique glazed terra-cotta altar signed by Jacopo Benevento, at Bolsena took the first photograph of several monuments, and at Viterbo had photographs made of the important lunettes by Andrea Della Robbia. At Rome I penetrated the mysteries of the Vatican and discovered there a signed monument by Fra Lucas, son of Andrea Della Robbia, and found in the Industrial Museum several monuments, which I identified as by the same author. Hitherto Fra Lucas has been known only as the maker of tile pavements. At Montecassiano there is a large monument concerning which a document has been published in many Italian journals, ascribing the authorship to Fra Mattia Della Robbia. This has been published from a drawing, and my photograph is the first taken from the original monument. On the basis of a very imperfect acquaintance with his style, other monuments are being freely attributed to Fra Mattia. In the Marche there is a series of terracotta altar-pieces attributed to Pietro Paolo Agabiti, a local painter of the xvi century. These attributions are purely hypothetical, and the hypothesis that Fra Mattia might have been their author is now being tested by local archeologists. I travelled over a large portion of this province, seeing some important monuments, but without making discoveries of importance. Umbria in general proved even less fruitful, the terracotta monuments being of poor quality and showing little or no Della Robbia influence.

A very interesting region comprises Città di Castello, Borgo San Sepolcro, Arezzo and the Casentino. Here Andrea Della Robbia left his impress strongly marked, especially in the very beautiful altarpieces at La Verna. As we approach Florence we find more by Giovanni and his school, especially noteworthy being the monuments at Galatrona and San Giovanni.

When obliged to return home there remained very few known Della Robbia monuments in Italy which I had not visited; almost everywhere I found more than had been already catalogued, and my collection of photographs of these monuments is undoubtedly the most complete in existence. Already considerable knowledge has been gained of the differences of style, which characterized the various members of the school, as I hope to show in a series of articles for the *American Journal of Archaeology*. In order to complete this work I shall still have to hunt further in the museums and private collections of Spain, Portugal, France, England, Germany and Austria. There are a few Della Robbia monuments in this country, of which one is in

Princeton, one in New York, one in Newport, R. I., and several in Boston.

Beside the direct pleasures of the chase and the bagging of game, there are many incidental pleasures in such a hunting expedition.

One learns of the whereabouts of other monuments, acquires a knowledge of the country, of the language, of the people and of all the local surroundings that help explain to us the significance of the past.

Yours sincerely,

ALLAN MARQUAND.

Guernsey Hall, Princeton, N. J., Dec. 27, 1892.

REVIEWS AND NOTICES OF BOOKS.

MAXIME COLLIGNON. *Histoire de la Sculpture Grecque*. Tome I.
Firmin-Didot et Cie. Paris, 1892.

This is the first volume of what is likely to prove for some time to come the best general history of Greek sculpture. The personal inspection of monuments made during his connection with the French school at Athens, and his training as a lecturer at the Faculté des Lettres at Paris, have given M. Collignon an admirable training for the production of this book. We see in it also a hearty appreciation of more specialized work. This is essentially a history from the archæological standpoint, the monuments of Greek sculpture, rather than written documents, being assumed as fundamental material. In this respect he represents a more advanced stage of archæological science than Overbeck. Again we feel in reading the volume the constant assumption that the history of Greek sculpture is a continuous evolution. Even when the development is checked, as by the Dorian invasion, the element of continuity is emphasized. The Dorians construct new forms out of the elements which they find already established in Greece. Thus the connecting links evincing the continuous flow, are not lost sight of when he comes to treat of the different schools. This regard for the general conditions of development tempers his judgment and prevents him from formulating or approving of irrelevant and improbable hypotheses. This is an admirable temper for one who writes a general history. We do not find here remote analogies and startling theories. There is an even flow to the narrative which indicates to us that the knowledge of Greek sculpture is now more connected, and that many gaps have been filled in the list during a few years. Yet M. Collignon is not a literary trimmer, steering a middle course between opposing theories. He merely seeks for near and probable causes, and is not carried away by resemblances which have little historical value. His method is fundamentally the historical method, the four books which compose the first volume treating of the Primitive Periods, Early Archaic, and Advanced Archaic Periods, and The Great Masters of the v century. It is unnecessary to give here the general analysis of the book, as it does not differ essentially from other similar histories, but we may notice the

systematic method with which he treats his material. At the opening of each new period he briefly notes the general historical conditions, then having classed the monuments by schools he considers the characteristics of a few representative examples, and finally endeavors to summarize the style of the school or period. In doing this he is handling considerable new material which has not yet found its way into general histories. Even to specialists, this general treatment of a subject with which they may be familiar in detail, is valuable. The book is a summary and index to a large number of monographs scattered in French, German, Greek and English periodicals, and we find it much more convenient to have these references at the foot of each page rather than gathered together at the end of the volume as in Mrs. Mitchell's excellent history. Of course it is no easy matter to distinguish sharply the characteristics of different schools in a country as small as Greece, where there was so much interaction, and the formulas, which are laid down now, may require correction in a few years. Still the attempt is well made, and is helpful in consolidating our knowledge.

In a work of whose method we cordially approve, the defects, if there be any, are likely to be in the way of omission of material or under-valuation of that which is taken into consideration. In the direction of omission we find that practically no use whatever has been made of Cyprus as a school of archaic Greek art, yet there is considerable material for this in European museums as well as in the Metropolitan museum in New York. In unduly estimating the value of the material in hand, we find here and there more influence attributed to the Phœnicians, than we should be inclined to allow. For example (p. 43,) the ceiling at Orchomenos, is explained as Phœnician because of the rosettes, and the same design upon Egyptian ceilings at Thebes is explained as Phœnician also. Evidently M. Collignon has not yet learned the grammar of the Egyptian lotus. We commend him to Prof. Goodyear. He is also in error in ascribing the first use of the term "lax-archaic" to Brunn's article in the *Mith. Ath.* vii. p. 117, for it held an important place in Semper's classification of Doric monuments made three years earlier. But these are minor matters. The book is abundantly illustrated, having twelve excellent plates in lithograph and photogravure, and two hundred and seventy-eight in the tone process and photoengraving. We regret that the tone process had not been more extensively used, as the drawings do not and cannot give a sufficiently full impression of the objects. However, is it quite proper that the maker of a tone process plate should sign it as is done here *Petit sculpsit?* A. M.

HEINRICH-BRUNN. *Griechische Götterideale in ihren Formen erläutert.*
8vo. pp. viii, 110. München, Verlagsanstalt für Kunst und
Wissenschaft. 1892.

This is not a systematic treatise, but a series of nine papers, all of which, except the last, have been already published. But we are grateful to Dr. Brunn and to his publishers for having collected these articles, which were scattered in various periodicals and written at wide intervals of time. In their present form they are instructive as revealing to us Dr. Brunn's general habits of mind in approaching his subject, as well as more useful and better adapted to a wide circle of readers. The first of these articles on the Farnese Hera appeared in the *Bullettino dell' Instituto*, in 1846, and is described as the "first attempt at the analytical consideration of the ideal of a Greek God," while the entire series may be taken as evidence that "the intellectual understanding of ideal artistic productions can be reached only on the basis of a thorough analysis of form." For his analysis of sculptural form, and his keen intuitions, Dr. Brunn has long been held in high esteem, and it is interesting to learn what we can of his methods. In considering the Hera head he first examined the original, afterwards a cast of it for many hours, then compared these impressions with observations made upon a human skull. In doing this he brings the work of art to nature, so as to substantiate or correct his impressions. We see him following the same method in the articles upon the Medusa and upon Asklepios. But this reference to nature is for the most part casual and incidental. It is not to nature but to literature that he resorts for help. He is not content to trust himself entirely to the method enunciated in the preface. He does not rest satisfied with the ideals as he reads them in the sculptured faces. He rather assumes that these ideals were fixed before they were expressed in marble. He looks at the heads of Hera and Zeus through "ox-eyed" and "dark-browed" glasses. He accepts the Divine ideal from the pages of Homer, rather than from the marble form, whenever it is possible. His mind is still imbued with doctrines concerning the "eternity of ideas" and "inward necessity," which he must have reached in some other way than by the analysis of external forms.

But while we may regard the method as not consistently applied, we have no fault to find with the method and no sentiment but that of admiration for the fine powers of observation displayed in these articles. There seems to be nothing in the form of the eye that escapes his attention. The slightest variations in the form of the lids, in the positions of the eyeball, he notices and assumes that they were

made the vehicles of expression. Similarly the forehead, the mouth, the chin, the hair are most attentively studied as vehicles of expression. Surely few, even trained archaeologists, can read these pages without having their powers of observation quickened. By far the greater portion of workers in the field of Greek sculpture are concerned at the present time with the morphology of art for the sake of its history. The analysis of forms is utilized to ascertain an historical series, to discover schools, to establish dates. Here we find scarcely a mention of schools or artists, no reference to history and not a date. The analysis of form leads to the interpretation of monuments and the establishment of ideals. It is the physiology, not the history of art. The publishers, who are gaining a world-wide reputation for their photo process reproductions, have added to this book a series of fine phototype plates.

A. M.

ARCHÆOLOGICAL NEWS.

SUMMARY OF RECENT DISCOVERIES AND INVESTIGATIONS.

PAGE.		PAGE.		PAGE.	
ALGERIA,	113	BABYLONIA,	131	PERSIA,	134
ARABIA,	131	CAUCASUS,	146	SYRIA,	140
ARMENIA,	146	CHINA,	127	THIBET,	127
ASIA (CENTRAL),	128	ETHIOPIA,	111	TUNISIA,	114
ASIA MINOR,	147	HINDUSTAN,	118		

AFRICA.

EGYPT.

TEXTS OF THE PYRAMIDS.—*Biblia* for November, 1892, contains an article by Dr. Brugsch on "The Texts of the Pyramids." It mentions the opening of one of the smaller pyramids of the Sakkarah group in 1880 by Mariette Pasha and the discovery of a number of hieroglyphic inscriptions beautifully chiseled into the walls of the inner aisles and chamber, which gave the name of the maker of the pyramid as Pepi, and fixed its date at the vi Dynasty or about 3,000 b. c. Prof. Brugsch then gives an account of his own work at the request of Mariette upon a second pyramid opened by Mariette's men at Sakkarah, where the walls of the chamber were covered with hieroglyphic inscriptions. A granite coffin, also, was found adorned with hieroglyphics repeating in different places the name of the King. The inscriptions on the walls had been destroyed in a number of places by treasure hunters.

Maspero, Mariette's successor, opened a number of pyramids of the same group and found a great quantity of inscriptions. As a result, new texts were discovered in a number of pyramids of which three belonged to the royal houses of the v and vi Dynasties. Maspero then published a copy of all these inscriptions together with their translation as far as this was possible.

These discoveries establish the important point in the study of the language, that its "iconographic phrase" dates from the most ancient times and goes back even to Menes the first king. The grammar, vocabulary and the construction of words and sentences betray the awkward stiffness of a language in its first literary beginnings, but it is shown in all its youthful strength and pregnancy.

A reciprocal comparison of all the texts found establishes the fact that they belong to a collection of texts known as "the Book." This "book" contained all the formulas and conjurations used after

death, is a guide for the deceased in the unknown future, and a book of charms, in which guise the Egyptian faith made its appearance in the most ancient period of culture, although containing nothing of the philosophy or history of the ancient Egyptians, it gives us much interesting information relating to mythology, geography, astronomy, botany and zoology.

For the ancient Egyptians believed that their earthly districts, cities and temples had heavenly counterparts of the same name; in fact, the whole geography of this world was duplicated in the world to come. The celestial inhabitants consist of the immortal company of the "shining" with the solar god at their head. Each constellation is designated as the abode of the soul of one god benificent or maleficent. In his wanderings the soul of man came in contact with these abodes of the evil gods and the book which covered the walls of his mortuary chamber provided charms which made him proof against harm.

The texts of the pyramids promise to the departed the enjoyment of a new life which he continues to live in the earth, in the body, in heaven, in the spirit. The soul had power to reunite itself to the body at will. We find in the texts mention of Egyptian political institutions at the remotest period, the existence of a high type of civilization. Agriculture was highly developed. All the domestic animals, with the exception of the horse and camel, are introduced, the arts of cooking, of dressing and of personal adornment, all find mention.

The texts of the pyramids then, though they fail to give us any information with regard to the life or history of the kings whose chambers they adorned have still much significance for the universal history of civilization.

THE MARRIAGE OF AMENOPHIS IV.—The Amarna tablets show that Amenophis married other Babylonian princesses besides Thi his first wife who bore the title of "Royal mother, Royal wife, and Queen of Egypt." A large tablet on exhibition at the British Museum with two others in the museum at Berlin and one at Gizeh gives a very entertaining correspondence between Amenophis and Kallima-Sin, king of Chaldea and brother of one of Amenophis' wives and father of two others. The tablet in the British Museum is relative to the alliance with Lukhaite the youngest daughter of the Chaldean king.

Kallima-Sin is reluctant to give his daughter to the Pharaoh and advances various reasons for his indisposition while Amenophis smoothly explains away the various impediments.

Matters take a new turn in the Berlin letter where we find the Babylonian requesting a wife of the Egyptian monarch, the request is curtly refused, whereupon Kallima-Sin replies, "Inasmuch as thou

hast not sent me a wife, I will do in like manner unto thee and hinder any lady from going from Babylon to Egypt." Another letter however shows that Kallima-Sin finally consented on condition of large emolument to send Lukhaite to Egypt, and this very mercenary and diplomatic alliance was finally made.—*Biblia*, v, pp. 108, 109.

THE DATE OF THE FOURTH EGYPTIAN DYNASTY.—Mr. Petrie's statement in *Medium* as to the passage-angle of Senefru's pyramid completes a chain of astronomical evidence proving the commencement of the IV Dynasty to have been very approximately 3700 b. c.

The entrance passage of the Medium pyramid has a polar distance (allowing for the azimuth error of the passage) of about 45°, and, if intended for observation of a circumpolar star, fixes the date of the structure within not very wide limits. Between 4900 and 2900 b. c. no naked eye star was within this distance of the pole, except the sixth magnitude star 126 Piazzi (xiii) which was so situate about 3820 to 3620 b. c., its minimum distance being about 36'. Allowing an uncertainty of a few minutes of arc, a date fifty years on either side of these extremes would satisfy the requirements of the case.

The passage-angle of the Great Pyramid is 3° 30' below the pole (3° 34' in the built portion, the latest). The Second Pyramid passage has also an angle of about 3° 31' polar distance (Smyth's measures—Perring and Vyse, whose angle measures are not accurate, give 4° 5'). Finally the northern "trial-passage" east of the Great Pyramid has the polar distance 3° 22' + or — 8'. Now at the date 3650 b. c. the star 217 Piazzi (somewhat brighter than that last named) was at a distance of 3° 29' from the pole, increasing to 3° 34' by 3630 b. c.

East of the Great Pyramid there are certain straight trenches (one at the N. E. corner) running respectively 13° 6', 24° 22', and 75° 58' east of North and west of South. At about the date named these trenches pointed very nearly to Canopus at setting and to Arcturus and Altair at rising, the average error of azimuth being less than a degree.

But even these differences of half a degree or so are accounted for. Refraction at the horizon amounts to about 35' of arc; if we assume that the Egyptian (?) astronomers took it roundly at 30', and that they intended to observe the stars on the true and not the apparent horizon, we find the azimuths would have been (3645 b. c.) :—

Canopus 13° 3' (W. of S.), Trench 13° 6'

Arcturus 24° 23' (E. of N.), " 24° 22'

Altair 76° 0' ("), " 75° 58'

These figures speak for themselves. The dates 3645 b. c. for the trenches and external works, and 3630 b. c. for the completion of the

entrance passage, with an interval of fifteen years, accord with the probabilities of the case. It should be remembered that they are deduced quite independently.

The net result is that the three reigns of Senefru, Khuffu, and Kaffra may be definitely assigned to the century 3700-3600 n. c.—G. F. HARDY, in *Academy*, Oct. 29.

THE PETRIE PAPYRI.—A paper was read by Prof. Mahaffy at the Oriental Congress upon "The Gain to Egyptology from the Petrie Papyri."—The first part of the papyri placed in his hands by Mr. Flinders Petrie consisted of classical documents which had already been printed by the Royal Irish Academy in the Cunningham Memoirs. Of these a large volume had appeared, which was exciting vehement controversy in Germany. But in addition to these there was a great mass of private papers which had not yet been printed, but which had been deciphered partly by Prof. Sayce and partly by himself. These papers were in two languages—Greek and demotic, or the popular language of the Egyptians. These were in part hieroglyphs done into cursive. Of these demotic fragments a large quantity had been sent to the British Museum. The Greek papyri still remain in his own hands. Strange to say, only one of these texts is bilingual. These interesting documents might be divided into—(1) legal agreements, of which some were contracts, others receipts, others again taxing agreements; (2) correspondence, partly of a public and partly of a private character. In the former were official reports, petitions, complaints. The private correspondence was especially interesting in showing the condition of society at that date. A large number of Macedonians and Greeks were settled in the Fayum under the second Ptolemy, about 270 b. c. In addition there was a large number of prisoners from Asia, who must have been brought into Egypt after the great campaign of the third Ptolemy, about 246 b. c. This mixed body were the recipients of large grants of land in the Fayum. It was interesting to find that many of these grants were as large as 100 acres, and the occupiers are thus called *ékarorápoipoi*. The farms were divided into three classes of land. First, there was what was called the Royal land, probably fruitful land was meant; the second class was called *ἀβρόποιος*, or land still in need of irrigation; and the third *ἄφορος*, or land which would bear nothing. This latter was also called *ἀλμυρός*, or the salt marsh, which was still common in Egypt. These recipients or allottees of land were called by a name familiar to all readers of Greek history—*κληρούχοι*. Prof. Mahaffy had found no native landowner mentioned in the papyri. But in many cases the natives had an interest in the crops on something like a *metayer* system. Among the

crops grown were the vine, olives, wheat, barley, rye. There was evidence in the legal papers that alienation of these farms was not allowed. Among the contracts are many between Greeks and natives. The principal officers of the Nome were the Strategos, the Oeconomos, and the ἐπιμελητής, or overseer. The commissioner of works had charge of drainage and irrigation works. It was amusing to find that two currencies were prevalent at that period, silver and copper. This discovery disposed of the current theory that the copper currency only came in under the late Ptolemies. The phrases for the rate of exchange had long been known—χαλκός οὗ ἀλλαγῆ but he had now got hold of a later term, *ισόνομος* which might be translated 'at par.' These documents were also valuable, as being transcriptions from Egyptian into Greek, with respect to our knowledge of the Egyptian language. As the Egyptians did not write down their vowels, the vocalisation of the language was hardly yet known. But results of much importance were gained—first, of a palaeographical, and, secondly, of a linguistic character. We now know exactly how they wrote in the third century b. c., and we have also learnt what was the Greek used by the respectable classes of that epoch. The Greek was far purer and better than that of the Septuagint would lead us to expect. There was still a large number of papers to be deciphered, and a large addition to our knowledge might be expected.—*Academy*, Sept. 24.

A GREEK PAPYRUS OF THE OLD TESTAMENT.—At the Orientalist Congress in London a most interesting document was submitted by the Rev. Professor Hechler. It is a papyrus manuscript discovered a few months ago in Egypt, and is supposed by some authorities to be the oldest copy extant of portions of the Old Testament books of Zachariah and Malachi. These pages of papyrus when intact were about ten inches high and seven inches wide, each containing 28 lines of writing, both sides of the sheet being used. The complete line contains from fourteen to seventeen letters. The sheets are bound together in the form of a book in a primitive though careful manner with a cord and strips of old parchment. The Greek is written without intervals between the words. The papyrus is in fair preservation, and is believed to date from the third or fourth century. It thus ranks in age with the oldest Greek manuscripts of the Septuagint version of the Old Testament in London, Rome and St. Petersburg. The differences in this papyrus tend to the conclusion that it was copied from some excellent original of the Septuagint, which was first translated about the year 280 b. c. The first summary examination has shown that it has several new readings which surpass some of the other Septuagint texts in clearness of expression and simplicity.

of grammar. It would also appear that it was copied from another Septuagint Bible and was not written, as was frequently the case, from dictation. A second scribe has occasionally corrected some mistakes of orthography made by the original copyist. These are still to be distinguished by the different color of the ink.

Professor Hechler said it was sincerely to be hoped that this papyrus of the Bible, probably the oldest now known to exist, would soon be published in fac-simile.

THE DATE OF THE AEGEAN POTTERY.—Quite a discussion has been carried on between Mr. Flinders Petrie and Mr. Cecil Torr on the subject of the period of the Aegean pottery in Egypt which Mr. Torr regards as having been assigned to too early a date by Mr. Petrie. The recent discovery of such fragments in the ruins of the palace of Khuenaten at Tel-el-Amarna, which existed for little over half a century in the XIV century B. C., would appear to prove beyond doubt the correctness of Mr. Petrie's position.—See *Classical Review* for March; Academy, May 14 and 21, etc.

A PROFESSORSHIP OF EGYPTOLOGY.—Miss A. B. Edwards has left almost the whole of her property to found a professorship of Egyptology, under certain conditions, at University College, London. The value of the chair will amount to about \$2,000 a year. Mr. W. M. Flinders Petrie has been appointed to this chair, and no better selection could have been made.

EXCAVATIONS BY DR. BRUGSCH, COUNT D'HULST AND M. NAVILLE.—Dr. H. Brugsch has been excavating during the past spring in the Fayoum. At Hawara he has discovered a considerable number of painted portraits. At Illahun he opened a tomb of the eleventh dynasty, which had not been entered since the mummy was originally deposited in it. Unfortunately the roof fell in before it could be properly cleared out. At Shenhour he came across the remains of a small temple. Since leaving the Fayoum he has been working on the site of Sais.

Count d'Hulst has been excavating at Behbet, near Mansourah, on behalf of the Egypt Exploration Fund. The ruined temple there is Ptolemaic, but the cartouche of Ramses II has been found in the course of the excavations.

Mr. Naville has returned to Europe. His excavations at Jmei el-Amdfd, the supposed site of Mendes, have been unfruitful, and he has fared no better at Tel el-Baghliyeh.—*Athenaeum* May 16.

EXCAVATIONS BY LIEUT. LYONS AT WADY HALFAH, ABUSIR, MATUGAH.—Lieut. H. G. Lyons has been continuing exploration at *Wady Halfah*. He has cleared out the sand from one of the temples, and found there eleven slabs with figures of a king making offerings to the god Horus of Behen or *Wady Halfah* in a chamber in front of the Hall of Columns. The names in the cartouches have been erased, and it is, therefore, impossible to identify the king. A second temple, with sandstone pillars and mud brick walls, is inscribed in many places with the name of Thothmes IV. This building had been flooded and filled to a depth of 2 ft. with fine sand. The third temple of *Wady Halfah* was completely surrounded by a line of fortifications, the flanks of which rest on the river, but of these works only the foundation remains. The discovery of them is, however, decidedly important, for in them we must see beyond doubt the great frontier fortress which marked the limit of the rule of Egypt on the south.

About five miles beyond the rock of *Abusir*, Lieut. Lyons has excavated the large space, about two hundred yards square, which is mentioned in Burckhard's 'Travels in Nubia,' and upon which stand the ruined walls of what has been variously described as a Roman fort or a monastery. He has come to the conclusion that the building is undoubtedly Egyptian, and has traced the site of the ancient stone temple inside it.

He reports that he has discovered old Egyptian fortresses at *Halfa* and at *Matuga*, twelve miles south, the latter containing a cartouche of Usertesen III: and has opened three rocktombs at *Halfa*.—*Academy*, July 16 and Aug. 6.

NOTES BY PROF. SAYCE.—Besides Tel el-Amarna, I have visited El-Hibeh and the little temple of Shishak, which was uncovered there last year. It is, unfortunately, in a most ruinous condition. One of the natives took me to a recently-found necropolis at a place under the cliffs called Ed-Dibâن, some two miles distant, which is plainly of the Roman age, and its occupants belonged to the poorer classes.

In the White Monastery near Sohâg, I found a stone with the cartouche of Darius, which had formed part of the ancient temple of Crocodilopolis.

I picked up some fine flint spear-heads near the line of Roman forts on the north side of the Gebel Sheikh Embârak, where I discovered an enormous manufactory of flint weapons and tools three years ago.

Lastly, I may add that at the back of the Monastery of Mari Girgis, about three miles south of Ekhmim, I found that another cemetery of the early Coptic period has been discovered, and that it is providing

the dealers with fresh supplies of ancient embroideries.—A. H. SAYCE, in *Academy*, Feb. 27.

PRESERVATION OF MOHAMMEDAN MONUMENTS.—The Soc. for the Protection of Ancient Buildings has protested, through Sir Evelyn Baring, against the so-called restoration of the mosque El-Mouyayyed and the mosque of Barkouk. It is proposed to rebuild the domed minaret of Barkouk's mosque and the suppressed bell-tower of the Sultan's mosque, which is to be replaced by a bulbous roof.—*Chron. des Arts*, 1892, No. 31.

ABU-SIMBEL.—The Council of Ministers has granted £1,000 for the preservation of Abu-Simbel, which is in danger of partial destruction. The rock above the four colossi on the façade, which is of sandstone with layers of clay, had become fissured, threatening an immediate fall. A party of sappers from the army of occupation have been sent to the temple, who, after binding with chains the falling rock, will break it up. Further examination will be made to ascertain whether additional work is required for the protection of this temple.—*Academy*, March 5.

ASSOUAN.—DAM.—A huge dam is to be thrown across the Nile at Assouan: its height will raise the water to the level of the floors of the ruins at Philae, enhancing rather than detracting from their picturesque grandeur. It is said that the structure of the dam will harmonize with the ancient architecture of Philae. The material already cut and lying in the quarries of Assouan will be almost sufficient to complete the dam.—*Biblia*, v. p. 109.

TOMBS.—Some new tombs have been opened, one by the Crown Princess of Sweden and Norway, the other by Mr. James. One of them belonged to the reign of Nofer-ka-Ra; and, in an inscription found in it, Prof. Schiaparelli has read the name of the land of Pun, which accordingly, was already known to the Egyptians in the age of the dynasty.—PROF. SAYCE in *Academy*.

CAIRO (NEAR). DESTRUCTION OF AN ANCIENT CHRISTIAN CHURCH.—Rev. Greville J. Chester writes (*Acad. March 19*). "Permit me to draw public attention to an almost incredible act of vandalism which was perpetrated during the last year in Egypt, close to the capital. The finest Roman ruin in Egypt was the fortress of Babylon, south of Cairo, known also as Mus'r el Ateekeh and Dayr esh Shemma. One of the most interesting sights in that Dayr was the Jewish synagogue, anciently the Christian Church of St. Michael, but desecrated by being handed over in the middle ages by an Arab Sultan to the Jews, and thenceforward

to the present time used by them as a place of worship. The building was of much architectural interest. The old Christian nave and aisles were preserved intact; but the Jews had destroyed the apse which must have existed, and had replaced it by a square Eastern sanctuary, and over the niche, within which were preserved the Holy Books of the Law, had adorned the wall with numerous Hebrew texts executed in gesso, forming an interesting example of Jewish taste and work in the middle ages. Some of the ancient Christian screenwork of wood was preserved, but was turned upside down, probably because gazelles and other animals formed part of the design. Behind this building, in a sort of court, the very finest portion of the original wall of the Roman fortress was visible, and, what is more important, the inner and most perfect circuit of one of the Roman bastion-towers, which outside looked out on the desert.

All this is now a thing of the past. The Jews have razed the ancient church and synagogue to the ground, and in its place have erected a hideous square abomination, supported internally on iron pillars. Of the fine Roman wall which bounded the property, and with it the bastion-tower, with its courses of brick at regular intervals, and its deeply-splayed windows, not a vestige now remains."

CAIRO.—GIZEH MUSEUM.—M. de Morgan has been appointed director of the Museum in place of M. Grébaut. This will meet with general approval. He is young and energetic, and the work he has done in the Caucasus and in Persia has placed him in the front rank of archaeologists and explorers. Moreover, he is an engineer, and therefore possesses a practical knowledge which, in view of the conservation of the ancient monuments of Egypt, is a matter of prime importance. He has asked the Board of Public Works for £50,000 in order to secure the building against fire; it is built of very inflammable material. During the past summer the museum has been entirely rearranged by him. Of the rooms in the palace, only some thirty-eight contained antiquities last winter; now, however, about eighty-five are used as exhibition rooms, and, for the first time, it is possible to see of what the Egyptian collection really consists. On the ground floor the positions of several of the large monuments have been changed, and the chronological arrangement is better than it was before. In one large room are exhibited for the first time eleven fine *mastaba stelæ* of the Ancient Empire, (vi. Dyn.) which were brought from Sakkara during the past summer; they are remarkable for the brightness of the colours, the vigour of the figures, and the beauty of the hieroglyphics. On the same floor are two splendid colossal statues of the god Ptah which have been excavated at Memphis during last summer, and many other

large objects from the same site. In a series of rooms, approached from the room in which the Dér el-Bahari mummies are exhibited, are arranged the coffins and mummies of the priests of Amen which were brought down from Thebes two years ago. The coffins are of great interest, for they are ornamented with mythological scenes and figures of gods which seem to be peculiar to the period immediately following the rule of the priest-kings at Thebes, *i. e.*, from about b. c 1000 to 800.

A new and important feature in the arrangement of the rooms on the upper floor is the section devoted to the exhibition of papyri. Here in flat glazed cases are shown at full length fine copies of the 'Book of the Dead,' hieratic papyri, including the unique copy of the 'Maxims of Ani,' and many other papyri which have been hitherto inaccessible to the ordinary visitor. To certain classes of objects, such as scarabs, blue glazed *faience*, linen sheets, mummy bandages and garments, terra-cotta vases and vessels, alabaster jars, &c., special rooms are devoted. The antiquities which, although found in Egypt, are certainly not of Egyptian manufacture, *e. g.*, Greek and Phœnician glass, Greek statues, tablets inscribed in cuneiform from Tel el-Amarna, &c., are arranged in groups in rooms set apart for them; and the monuments of the Egyptian Christians or Copts are also classified and arranged in a separate room.—*Athenaeum*, May 14 and Nov. 19.

THE FRENCH SCHOOL AT CAIRO.—M. Maspero analyzed before the *Acad. des Inscr.* (Oct. 28), the recent work and immediate prospects of the French School at Cairo. The *Memoirs* recently issued show the field that it covers at present. First comes a fascicule of Greek texts, the mathematical papyrus of Akmin, explained and commented by M. Baillot; a long fragment of the Greek text of the Book of Enoch, remains of the apocryphal Gospel and Apocalypse of St. Peter, reproduced by M. Bouriant. All these works are of extreme importance for primitive church history. Arab archaeology is represented by memoirs of M. Casonova on an Arab globe, on sixteen Arab steles, and especially by M. Burgoïn's great work on Arab art in Egypt. Father Scheil makes an incursion into Assyriology by his publication of some of the Tel el-Amarna tablets, and in this connection M. Maspero states that the intention of the school is to extend their researches to Syria and Mesopotamia and to include the entire East both ancient and modern. In the Egyptian domain, besides the Theban fragments of the Old Testament and the remains of the Acts of the Council of Ephesus, the notable event is the appearance of the first fasciculus of the work on *Edu* by M. de Rochemontéix. In it a complete temple will be placed before students. The entire

Egyptian religion will be illustrated, in all its rituals,—ritual of foundation, of sacrifice, of the feast of Osiris. M. Benedite has commenced in the same way the publication of the Temples of Philæ.—*Revue Critique*, 1892, No. 45.

The investigations enumerated above are far from being all. They represent merely the official governmental side of the work. The learned societies have done a great deal; such as the Ecole des lettres of Algiers, the management of historical monuments (Tebessa), and the French School of Rome.

EL-KARGEH.—PLASTER BUSTS.—At a meeting of the *Académie des Inscriptions*, M. Héron de Villefosse exhibited four painted plaster busts from El-Kargeh, in the Great Oasis, which have recently been sent to the Louvre by M. Bouriant, director of the French School at Cairo. They have been taken from the lids of sarcophagi; but the peculiarity about them is that the heads were not in the same plane with the body, but as it were erect. The features have been modelled with extraordinary verisimilitude; the eyes are of some glassy material, in black and white; the hair was modelled independently, and afterwards fitted to the plaster head; the painting is in simple colours—various shades of red for the skin, and black or brown for the hair. M. Héron de Villefosse maintained that they were certainly portraits. The physiognomy of one is Jewish; another recalls a bronze head from Cyrene in the British Museum, which Fr. Lenormant considered to be of Berber type; the third might be Syrian, and the fourth Roman. The date is probably about the time of Septimius Severus. M. Maspero declared that he had never seen anything of the kind in any museum.—*Academy*, July 9.

These busts have been placed on exhibition at the Louvre, in the *Salle des fresques*.—*Chron. des Arts*, 1892, No. 28.

According to a writer in the *Temps*, two are Greeks, one Syrian and one a Jew. The Greeks are blond with straight hair; the others have dark brown curly hair. All are bearded. The drapery is white.—*Chron. des Arts*, 1892, No. 30.

The department of Greek and Roman antiquities at the Louvre has also received from M. Bouriant two funerary inscriptions found in the necropolis dating from the second century A. D. One is Latin, the other Greek.—*Chron. des Arts*, 1892, No. 32.

CHATBI (NEAR)—NECROPOLIS.—M. Botti has discovered between Chatbi and Ibrahimieh a Roman necropolis of the first or second century A. D. at a depth of fourteen metres. It is excavated in soft calcareous stone and its chambers and corridors are reached by a rock-cut staircase.

The bodies are both laid on the floor and placed in jars. They were intact.—*Chron. des Arts*, 1892, No. 30.

EL-QAB.—Mr. Taylor has been excavating here for the Egypt exploration fund, in continuation of the previous year's work. Prof. Sayce reports, after Mr. Taylor's departure (*Acad.*, March 12), that more of the foundations of the old temple which stood within the temple were then visible than the preceding year. The fragmentary remains show that among its builders were Usertesen (xii dyn.), Sebekhotep II (xiii dyn.), Amenophis I and Thothmes III (xviii dyn.) and Nektanebo I (xxx dyn.). In one of the tombs Nofer-Ka-Ra is alluded to as (apparently) the original founder of the sanctuary.

GEBELEN.—TEMPLE OF HOR-M-HIB.—Prof. Sayce writes. "On the voyage from Luxor to Assuan I stopped at Gebelen, and found that the Bedouin squatters there had unearthed some fragments of sculptured and inscribed stones on the summit of the fortress built by the priest-king Ra-men-kheper and queen Isis-m-kheb to defend this portion of the Nile. On examination they turned out to belong to a small temple which must once have stood on the spot. The original temple, I found, had been constructed of limestone by Hor-m-hib, the last king of the xviii dynasty, and brilliantly ornamented with sculpture and painting. Additions had been made to the temple, apparently by Seti I.; since besides the stones belonging to Hor-m-hib, there were other fragments of the same limestone as that of which the temple of Seti at Abydos is built, and covered with bas-reliefs and hieroglyphs in precisely the same delicate style of art. Eventually a building of sandstone had been added to the original temple on the west side by Ptolemy VII Philometor. It may be noted that Ra-men-kheper used bricks burnt in the kiln as well as sun-dried bricks in the construction of the fortress, as he also did in the construction of the fortress at El-Hibeh."—*Academy*, March 12.

HAT-NUB.—THE EARLY QUARRY.—This interesting quarry has been recently discovered by Mr. Griffith. Mr. Petrie writes: Allow me to note that in this quarry, described by Mr. Griffith (*Academy*, Jan. 23), and situated ten miles south-east of El Tell in this plain, the main quarry does not contain any name later than the vi Dynasty. The tablet in the thirtieth year being of Pepi II (Nefer-ka-ra), and mentioning the *sed* festival in that year, this might refer to the Sothiac festival of 120 years falling in that year, and so be important as a datum. There are seven painted inscriptions of Pepi II, containing about fifty lines in all. There are also a great number of incised graffiti.—*Academy*, Feb. 20.

HAWARA.—MUMMY PORTRAITS.—Among the most important discoveries of the year is that by Dr. Brugsch, of three mummy portraits in the desert of Hawara. These were found, uncoffined, and buried at a very slight depth below the surface.

The first is that of a woman: the portrait is brilliantly executed in tempera, on canvas, and is the most ancient of paintings on canvas known, for its date cannot be fixed later than the first century B.C.

The next portrait was on the mummy of a man but instead of a painting on canvas is a relief in stucco, gilded. The features are carefully reproduced, as are the beard and whiskers.

The third mummy was provided with a beautifully executed portrait on wood which is one of the best examples of ancient painting, though not so rare as the other, for ancient portraits painted on wood have long been known.—*Biblia*, v. p. 233.

HELIOPOLIS.—M. Philippe, the Cairo dealer in antiquities, is, with permission from the Gizeh Museum, carrying on excavations at Heliopolis, which have brought to light some tombs of the Saïtic period.—*Academy*, Nov. 12.

KOM-EL-AHMAR.—“At Kom el-Ahmar, opposite El-Qab, I visited two recently-discovered tombs, which contain the cartouches of Pepi, and are in a fairly perfect condition. The walls are covered with delicate paintings in the style of those of Beni-Hassan, and explanatory inscriptions are attached to them. The early date of the paintings and inscriptions makes them particularly interesting. The tombs are still half buried in the sand, and only the upper part of the internal decoration is visible.”—PROF. SAYCE, in *Academy*, April 2.

MEIR.—The authorities of the Gizeh Museum have, on the suggestion of Johnson Pasha, caused excavations to be made at Meir, near Deirut, in Upper Egypt, which have already resulted in the discovery of some tombs of the XI dynasty. It is intended to continue these excavations.—*Academy*, Nov. 12.

MEMPHIS.—DISCOVERIES BY M. DE MORGAN.—At a meeting of the *Acad. des Inscr.* Prof. Maspero communicated the result of the excavations on the site of Memphis by M. de Morgan. He has discovered among the ruins of the temple of Ptah a number of monuments of importance. First, a large boat of granite, similar to that in the museum at Turin, on which the figures are destroyed; next, several fragmentary colossi of Rameses II, and in particular two gigantic upright figures, dedicated by this king, of Ptah, the god of Memphis, enshrouded in mummy-wrappings and holding a sceptre in both hands; lastly, some isolated figures, arranged in a court or a chamber. The importance of this

discovery, said Prof. Maspero, will be realised when we bear in mind that we possess no divine image of large size, and that the very existence of statues of gods in Egyptian temples has sometimes been denied.—*Academy*, Sept. 17.

SEHEL.—THE TENTH DYNASTY.—Prof. Sayce reports that he has been finding evidences of the little-known x dynasty in the immediate neighborhood of the First Cataract. “Mr. Griffith and Prof. Maspero have shown that certain of the tombs at Siût belonged to the period when this dynasty ruled in Egypt. I have now discovered inscriptions which show that its rule was recognized on the frontiers of Nubia.

“An examination of the position occupied by the numerous inscriptions on the granite rocks of the island of Sehél have made it clear to me that we must recognize two periods in the history of the sanctuary for which the island was famous. During the second period the temple stood on the eastern slope of an eminence where I found remains of it two years ago. As I also found fragments of it bearing the name of Thothmes III on the one hand, and of Ptolemy Philopator on the other, it must have existed from the age of the xviii dynasty down to Ptolemaic times. Throughout this period the inscriptions left by pious pilgrims to the shrine all face the site of the temple. So also do a certain number of inscriptions which belong to the age of the xii and xiii dynasties. But the majority of the inscriptions which belong to the latter age, like the inscriptions which are proved by the occurrence of the names of Antef and Mentu-hotep to be of the time of the xi dynasty, face a different way. They look southward.

“This winter I have come across a large number of inscriptions on the mainland side of the channel which look northward, that is, towards the island. A few of these inscriptions are of the time of the xii dynasty, but the greater number belong to the xi dynasty, and one is dated in the forty-first year of Ra-neb-kher. It would seem, therefore, that at the epoch when they were inscribed on the rocks the sanctuary of Sehél stood either in the middle of the southern channel of the river or upon its edge.

“On the island side of the channel there are a good many inscriptions which are shown by the weathering of the hieroglyphs to be older than the age of the xi dynasty. Indeed, the inscription of an Antef is cut over one of them. They all present the same curious forms of hieroglyphic characters, and contain for the most part titles and formulæ not met with in the later texts. Moreover, they are not dedicated like the later texts to the divine trinity of the Cataract, Khnum, Anuke, and Sati, but to a deity whose name is expressed by

a character resembling an Akhem seated on a basket. Mr. Wilbour and I first noticed it last year.

"One of the early inscriptions contains a cartouche which reads Ra-nefer-hepu, the last element being represented by the picture of a rudder. Now Mr. Newberry and his companions at Beni-Hassan have discovered that one of the groups of tombs which exist there is of older date than the time of the xii dynasty. In this group of tombs occurs the name of a lady who was called Nefer-hepu. She must have been born in the reign of Ra-nefer-hepu, and will consequently belong, not to the age of the xi dynasty, but to that of one of the dynasties which preceded it.

"That this dynasty was the x is made pretty clear by the inscriptions on the mainland side of the channel I have described. Here I have found inscriptions of the early sort mingled with those of the xi dynasty in such a way as to show that they cannot have been widely separated in age. Moreover, in one of them, the name of Khatf is associated with that of Ra-mer-ab; and Khatf is not only a name which characterises the xi dynasty, but it was also the name of the owner of one of the tombs at Siut, which Mr. Griffiths has proved to belong to the time of the x dynasty. We were already acquainted with the name of Ra-mer-ab from a scarab; and two years ago Mr. Bouriant obtained a bronze vase which gave the double name of Ra-mer-ab Kherti. Kherti is a king of the x dynasty. By the side of the inscription which contains the name of Ra-mer-ab, I found others with the names of Ra-mer-ankh and Ameni. That Ameni was a king of the x dynasty has already been suspected.

"The inscriptions I have copied this winter, therefore, have not only given us the names of some kings of the x dynasty, one of them previously unknown; they have also shown that the power of the dynasty was acknowledged as far south as the Cataract. Moreover, they indicate that the government must have passed from the x to the xi dynasty in a peaceful and regular manner."

SHAT-ER-RIGALEH.—Prof. Sayce writes: "I have visited the famous 'Shat er-Rigaleh,' the valley a little north of Silsilis and the village of El-Hammâni, in which so many monuments of the xi dynasty have been discovered by Messrs. Harris, Eisenlohr, and Flinders Petrie. To these I have been able to add another cartouche, that of Ra-nofer-neb, a king who is supposed to belong to the xiv dynasty. His name and titles have been carved on the rock at the northern corner of the entrance into the valley by a certain Ama, a memorial of whom was found by Mr. Petrie in the Wadi itself (*A Season in Egypt*, pl. xv. No. 438). Mr. Spicer, whose dahabiyeh accompanied mine, photographed

the inscriptions in which Mentuhotep-Ra-neb-kher of the xi dynasty is mentioned, as well as the one which enumerates the names of three kings of the xviii dynasty, Amenophis I, Thothmes I, and Thothmes II. One of the inscriptions of Mentuhotep is dated in the thirty-ninth year of the king's reign. The epithet *mā-kheru* "deceased" is attached only to the cartouche of Amenophis I, not to those of the other two kings, proving that they reigned contemporaneously."—*Academy*, March 12.

TEL EL-AMARNA.—EXCAVATIONS BY MR. PETRIE.—Mr. Petrie communicates the following report to the *Academy*: "During the last four months I have been excavating at this place, the capital of Khuenaten. Past times have done their best to leave nothing for the present—not even a record. The Egyptians carried away the buildings in whole blocks down to the lowest foundations, completely smashed the sculptures, and left nothing in the houses; and the Museum authorities, and a notorious Arab dealer, have cleared away without any record what had escaped the other plunderers of this century. I have now endeavoured to recover what little remained of the art and history of this peculiar site, by careful searching in the town. From the tombs I am debarred, although the authorities are doing nothing whatever there themselves, and the tomb of Khuenaten remains uncleared, with pieces of the sarcophagus and vessels thrown indiscriminately in the rubbish outside.

The region of main interest is the palace; and the only way to recover the plan was by baring the ground, and tracing the bedding of the stones which are gone. For this I have cleared all the site of the buildings, and in course of the work several rooms with portions of painted fresco pavements have been found. One room which was nearly entire, about 51 by 16 feet, and two others more injured, have now been entirely exposed to view, and protected by a substantial house, well lighted, and accessible to visitors, erected by the Public Works Department. With the exception of a pavement reported to exist at Thebes, these are the only examples of a branch of art which must have been familiar in the palaces of Egypt. The subjects of these floors are tanks with fish, birds, and lotus; groups of calves, plants, birds, and insects; and a border of bouquets and dishes. But the main value of these lies in the new style of art displayed; the action of the animals, and the naturalistic grace of the plants, are unlike any other Egyptian work, and are unparalleled even in classical frescoes. Not until modern times can such studies from nature be found. Yet this was done by Egyptian artists; for where the lotus occurs, the old conventional grouping has constrained the design, and

the painter could not overstep his education, though handling all the other plants with perfect individuality. That Babylonian influence was not active, is seen by the utter absence of any geometrical ornament; neither rosettes or stars, frets or circles, nor any other such elements are seen, and perhaps no such large piece of work exists so clear of all but natural forms. Some small fragments of sculptured columns show that this flowing naturalism was as freely carried out in relief as in colour.

Of the architecture there remain only small pieces flaked off the columns. By comparing these the style can be entirely recovered; and we see that both the small columns in the palace, and those five feet thick in the river frontage, were in imitation of bundles of reeds, bound with inscribed bands, with leafage on base and on capital, and groups of ducks hung up around the neck. A roof over a well in the palace was supported by columns of a highly geometrical pattern, with spirals and chevrons. In the palace front were also severer columns inscribed with scenes, and with capitals imitating gigantic jewellery. The surface was encrusted with brilliant glazes, and the ridges of stone between the pieces were gilt, so that it resembled jewels set in gold. An easy imitation of this was by painting the hollows and ridges, and the crossing lines of the setting soon look like a net over the capital. We are at once reminded of the "net work" on the capitals of Solomon, and see in these columns their prototype.

This taste for inlaying was carried to great lengths on the flat walls. The patterns were incrusted with coloured glazes, and birds and fishes were painted on whole pieces and let into the blocks; hieroglyphs were elaborately carved in hard stones and fixed in the hollowed forms, black granite, obsidian, and quartzite in white limestone, and alabaster in red granite. The many fragments of steles which have come from here already, and which I have found, appear to show a custom of placing one stele—with the usual adoration of the sun by the king and queen—in each of the great halls of the palace and temple. These steles are in hard limestone, alabaster, red granite, and black granite. I have found more steles on the rocks on both sides of the Nile, and have seen in all eight on the eastern and three on the western cliffs.

The history of this site, and of the religious revolutions, is somewhat clearer than before. Khuenaten came to the throne as a minor; for in his sixth year he had only one child, and in his eighth year only two, as we learn from the steles, suggesting that he was not married till his fifth year apparently. On his marriage he changed his name from Amenhotep IV (which occurs on a papyrus from Gurob in his

fifth) to Khuenaten (which we find here in the sixth). A scarab which I got last year in Cairo shows Amenhotep (with Amen erased subsequently) adoring the cartouches of the Aten, settling his identity with Khuenaten. In a quarry here is the name of his mother, Queen Thii, without any king; so she was probably regent during his minority, and started this capital here herself.

The character of the man, and the real objects of his revolution in religion and art, are greatly cleared by our now being able to see him as in the flesh. By an inexplicable chance, there was lying on the ground, among some stones, a plaster cast taken from his face immediately after his death for the use of the sculptors of his funeral furniture; with it were the spoilt rough blocks of granite *ushabtis* for his tomb. The cast is in almost perfect condition, and we can now really study his face, which is full of character. There is no trace of passion in it, but a philosophical calm with great obstinacy and impracticability. He was no vigorous fanatic, but rather a high bred theorist and reformer: not a Cromwell but a Mill. An interesting historical study awaits us here from his physiognomy and his reforms. No such cast remains of any other personage in ancient history.

According to one view, he was followed successively by four kings, Ra saa ka khepru, Tut ankhamen, Ai, and Horemheb, in peaceable succession. But of late it has been thought that the last three were rival kings at Thebes; and that they upheld Amen in rivalry to Khuenaten and his successor, who were cut very short in their reigns. Nothing here supports the latter view. A great number of moulds for making pottery rings are found here in factories; and those of Tut ankhamen are as common and as varied as of Khuenaten, showing that he was an important ruler here for a considerable time. Of Ai rings are occasionally found here, as also of Horemheb, who has left a block of sculpture with his cartouche in the temple of Aten. So it is certain that he actually upheld the worship of Aten early in his reign, and added to the buildings here, far from being a destructive rival overthrowing this place from Thebes. Afterwards he re-established Amen (as I got a scarab of his in Cairo, "establishing the temple of Amen"), and he removed the blocks of stone wholesale from here to build with at Thebes. Later than Horemheb there is not a trace here; Seti and Ramessu are absolutely unknown in this site, showing that it was stripped of stone and deserted before the xix dynasty. Hence, about two generations, from 1400 to 1340 b. c., are the extreme limits of date for everything found here. The masonry was re-used at Thebes, Memphis, and other places where the name of Khuenaten has been found.

The manufactures of this place were not extensive—glass and glazes were the main industries; and the objects so common at Gurob (metal tools, spindles, thread, weights, and marks on the pottery) are all rare here. The furnace and the details of making the coloured blue and green frits, have been found. Pottery moulds for making the pendants of fruits, leaves, animals, &c., are abundant in the factories; and a great variety of patterned "Phoenician" glass vases are found, but only in fragments.

The cuneiform tablets discovered here were all in store rooms outside the palace; they were placed by the house of the Babylonian scribe, which was localised by our finding the waste pieces of his spoilt tablets in rubbish holes. A large quantity of fragments are found of the Aegean pottery, like that of the early period at Mykenae and Ialysos. This is completely in accord with what I found at Gurob, but with more variety in form. The Phoenician pottery which I found at Lachish is also found here, so we now have a firm dating for all these styles. The connexion between the naturalistic work of these frescoes and the fresco of Tiryns and the gold cups of Vaphio is obvious; and it seems possible that Greece may have started Khuenaten in his new views of style, which he carried out so fully by his native artists. The similarity of the geometrical pattern columns to the sculptures of the Mykenae period is striking; hitherto such Egyptian decoration was only known in colour, and not in relief. We have yet a great deal to learn as to the influences between Greece and Egypt, but this place has helped to open our eyes."—W. M. FLINDERS PETRIE in *Academy*, April 9.

CUNEIFORM TABLETS.—Prof. Sayce while in Egypt spent several days at Tel el-Amarna with Mr. Petrie, and examined the fragments of cuneiform tablets which he has discovered there. Among them are portions of letters from the governors of Musikhuna, in Palestine, and Gebal, in Phoenicia. The most interesting were some lexical fragments. One or two of these formed part of a sort of comparative dictionary of three (or perhaps five) different languages, one of them of course being Babylonian, in which the words of the other languages are explained at length. The work seems to have been compiled by "order of the King of Egypt." Another work was a dictionary of Sumerian and Babylonian, in which the pronunciation of the Sumerian is given as well as their ideographic representation. Thus the Babylonian *risipu* and [*di*] *kate* are stated to be the equivalents not only of the ideographic *gaz-gaz*, but also of the phonetically written *ga-az-ga-az*. This confirms the views of Professors Sayce and Oppert, expressed long

ago, as to the comparatively late date at which Accado-Sumerian ceased to be a spoken language.—*Academy*, May 14.

TOMB OF KHUENATEN OR AMENOPHIS IV.—Prof. Sayce writes to the *Academy* of Feb. 27. I have been spending a few days at Tel el-Amarna. Mr. Flinders Petrie is excavating the ruins of the old city of Khuenaten, while M. Alexandre, on behalf of the Gizeh Museum, has spent the summer and autumn among the tombs of Tel el-Amarna, and his labours have been rewarded by some important discoveries. At the entrance to one of the tombs, for instance, he has found stelae of the usual tombstone shape let into the wall like the dedication tablets of Greek and Roman times. The removal of the sand from the foot of the great stela of Khuenaten, first discovered by Prisse d'Avennes, has brought to light a most interesting text. This describes the distance of the stelae erected by the Pharaoh one from the other, and thus defines the limits of the territory belonging to the city which he built.

But M. Alexandre's crowning discovery—a discovery which is one of the most important made in Egypt in recent years—did not take place until December 30. It was nothing less than the discovery of the tomb of Khuenaten himself. The tomb is well concealed, and is at a great distance from the river and the ruins of the old city. Midway between the northern and the southern tombs of Tel el-Amarna, in the amphitheatre of cliffs to the east of the ancient town, are two ravines, more than three miles from the mouth of one of them, towards the head of a small valley is the tomb. It resembles the famous "Tombs of the Kings" at Thebes, being in the form of a subterranean passage cut in the rock, and sloping downwards at an acute angle to a distance of more than 100 metres. In front of the entrance is a double flight of steps also cut out of the rock, with a slide for the mummy between them. After entering the passage of the tomb, which is broad and lofty, we pass on the right another long passage, probably intended for the queen, but never finished. Soon afterwards we come to a chamber, also on the right, which serves as an antechamber to another within. The walls of both chambers have been covered with stucco, and embellished with hieroglyphs and sculptures. Among the latter are figures of prisoners from Ethiopia and Syria, of the solar disk, and of female mourners who weep and throw dust on their heads. From the inscriptions we learn that the two chambers were the burial-place of Khuenaten's daughter Aten-mert, who must consequently have died before him. It further follows that Ra-si-aa-ka, Aten-mert's husband, who received the titles of royalty in consequence of his marriage, must have been coregent with Khuenaten.

Khuenaten himself was buried in a large square-columned hall at the extreme end of the tomb. Fragments of his granite sarcophagus have been found there by M. Alexandre, as well as pieces of the exquisitely fine mummy cloth in which his body was wrapped. At the entrance to the tomb M. Alexandre also picked up broken *ushebtis*, upon which the cartouches of Khuenaten are inscribed. Before the Pharaoh had been properly entombed it would seem that his enemies broke into his last resting-place, destroyed his sarcophagus, tore the wrappings of his mummy to shreds, and effaced the name and image of his god wherever it was engraved upon the wall. The only finished portions of the tomb are the chambers in which his daughter was buried. Elsewhere the tomb is in the same condition as the majority of the tombs of his adherents. The walls have never been covered with stucco, much less painted or sculptured, and even the columns of the magnificent hall in which his sarcophagus was placed remains rough-hewn. It is clear that the king died suddenly, and that he was buried in haste on the morning of a revolution. His followers may have made a stand against their enemies for a few months, but it is difficult to believe from the state in which the tomb has been found that they can have done so for a longer time. Very shortly after Khuen-Aten's death his city must have been destroyed, never to be inhabited again.

Mr. Petrie in a letter to the *Academy* says: "It has long been known that the Arabs had obtained access to the tomb of the remarkable founder of Tel el-Amarna; the heart scarab of Khuenaten was sold two or three years ago at Luxor, and the jewellery of Neferti-iti, his queen, a year or two before that."

The entrance is like that of the tomb of Seti I at Thebes; but the sloping passage is about half the length of that.—*Academy*, Feb. 6.

COLLECTION IN LONDON.—The collections of sculpture, painting, faience, &c., which Mr. Flinders Petrie brought back from his excavations last winter at Tel el-Amarna have been placed on view at 4 Oxford-mansion, Oxford-circus, W. Their special interest is that they reveal an hitherto unknown form of art, remarkable both for its originality and for its spirited rendering of natural objects. The resemblance to some of the finest objects of Mycenaean work is very striking. The exhibition remained open until October 15.—*Academy*, Sept. 24.

ETHIOPIA.

NORTHERN ETBAI.—**EXPEDITION TO THE NORTHERN ETBAI.**—A recent scientific expedition to northern Etbai or northern Aethiopia, by the order

of the Khedive, is the subject of a very interesting paper by Ernest A. Floyer, in the *Journal of the Royal Asiatic Society* for October.

The chief investigation of the expedition was devoted to the remains of certain large mining stations which proved to be doubly interesting, as giving evidence of two distinct periods of the mining industry.

Mines have been opened over almost the entire surface, and the remains of numerous towns mark the dwelling places of the miners.

Not only in the mines is found evidence of two methods, one very ancient and another less ancient; but in the settlements above were discovered remains of Ptolemaic construction, together with the stone huts of a race probably aboriginal, and preceding or contemporaneous with but not unknown to the ancient Egyptians.

The Ptolemaic miner seem to have employed the ancient methods to a great extent, so that it would seem that there could never have been any complete cessation of mining for a very long period.

The miners of Rameses' time, too, used methods of great antiquity. In the Wadi Abba stands a rock temple with hieroglyphic inscriptions stating that Sethos, father of Rameses the Great, had discovered gold mines in this region. Golenischeff believes this temple to have been erected by the Ptolemies. At the mines of Sighait is an hieroglyphic inscription recording the visit of a royal scribe and a mine inspector. This is faintly inscribed on the face of a steep rock. At the emerald mines of Sikait may be seen a number of Greek dedications over rock-cut temples. Near the Wadi Khashat, where topazes are found, there stands a square enclosure, the platform of a temple, and numerous ruined structures of apparent Greek origin. It would appear from these remains that the Ptolemies examined all of the ancient mines and reopened a certain number—here they erected their temples, houses and barracks for slaves, here they constructed high roads for their carts and oxen, with caravan service, and post houses built at intervals.

Beside these Ptolemaic ruins are found some traces of the prehistoric miners, and in a few cases as at the mines of the Um Roos these exist alone. The most important traces are the stone huts built of large stones in two lines, and of uniform irregularity. In connection with these huts there is not a single mark or inscription of any kind which might lead to a solution of the problem with regard to their origin.

Their implements, quantities of which are found at Um Roos were as crude as their abodes, in fact the use of some of them cannot be determined. The mines, though extensive, are little more than burrows, and in a few cases it is not known for what mineral they were

excavated. The writer, after dismissing the Æthiopians, the Kushites and the ancient Egyptians, as the probable pre-Ptolemaic miners, suggests that the Etbai was peopled by a negroid tribe of natural miners, the possible ancestors of the copper miners in the mountains north of Kordofan.

Near the Wadi Sikait, not far from the temples with Greek inscriptions already referred to, is a fine building of apparently later date, and supposed by the writer to have been a church from its construction, for the mines were worked steadily during the third and fourth centuries of the christian era. The structure has no roof over the main portion, but what was apparently an apse still retains its roof of long slabs of schist. The body is filled with fallen slabs. The walls show a side window and several niches, which features suggested a christian church.

ALGERIA AND TUNISIA.

M. René de la Blanchère in making, to the *Acad. des Inscriptions*, his report on the excavations and discoveries in Tunisia and Algeria during 1891, calls attention to the new organization of the archæological administration of this region. Up to the present time Tunisia and Algeria had separate organizations, but the following arrangement has now gone into effect: M. de la Blanchère is delegate of Public Instruction and Fine Arts, in Algeria and Tunisia, and the mission under him is at present composed of M. M. Doublet, inspector of antiquities in the Regency; Pradère, conservator of the Museum of Bardo; Wood, attachè at the same museum; Gauckler, historical student, and Marye: it is quite distinct from the local administrations. Although it supplies the greater number of the agents of the Bey's service of antiquities, which it created, it has no connection with its administration any more than with that of similar organizations in Algeria, such as that of historical monuments. Its object is: (1) to keep the Committee of Historic works (of Algeria and Tunisia) informed of all that happens in Africa in the domain of archæology, to transmit to it any documents and to make researches regarding necessary work; (2) to carry on three important publications, two of which have already been partly published; the *Collections du Musée Alaoui*, the *Musées et collections archæologiques de l'Algérie*, and the *Catalogue général des musées de l'Afrique française*; (3) to hold itself at the disposal of the French ministry and the local authorities for any work deemed necessary, excavations, organization of museums, enterprises of learned societies, explorations, etc. The head of the mission, being a délégué of the ministry, has the right to oversee the Tunisian

service of antiquities, and has also for both Algeria and Tunisia the permanent inspection of libraries and museums.

By means of this central organization, all the desiderata for African archæology are obtained, and the best methods are put in practice for excavations, the organization of museums, and the publication of antiquities.

TUNISIA.

M. de la Blanchère reports that in 1891 the most urgent need in Tunisia was the classification of monuments that should be preserved. The operation is being carried on under the direction of M. Doublet; enquiry was opened in regard to about 150 monuments, nearly all of great importance, of which 27 are already classified. No excavations were undertaken by the service of antiquities, its funds being all employed on finishing the Bardo museum. It has, however, overseen or authorized the following enterprises, the most important of which will be found described in their alphabetical order: Sfaks; Sousse; Henchir Maatria; Dougga; Teboursouk; Henchir Tinah; Maktar.

CARTHAGE.—M. de Vogüé has communicated to the *Acad. des Ins.* (March 18) a report on the continuation of Father Delattre's excavations at Carthage, which go on giving interesting results which will be fully described in a publication by the explorer himself. At another point a funerary inscription was found of an iron easter. This is the first time the profession is mentioned in Carthaginian texts, which had hitherto mentioned only gold and bronze casters. Of course there was no casting of iron at that time, but only working of the metal.—*Revue arch.* 1892, II, p. 254.

TERRACOTTA MOULDS.—M. Héron de Villefosse communicated to the *Acad. des Inscr.* (Nov. 11,) the photographs of seventy-two moulds for intaglios, in terracotta, selected from a collection of over three hundred which were found in the lower part of Carthage, between the hill of St. Louis and the sea. They were all executed in antiquity. There are coin types, a head of Herakles, similar to that of some silver coins attributed to Jugurtha, the fronting head of Silenus of the coins of Kyzikos, the galley of the coins of Sidon, etc., all of the purest Greek style. There are also some female heads, recalling Greek Sicilian coins; standing figures; an Athena, a Pan, a Hermes fastening his heel-pieces, a Marsyas, an amazon, a nude woman fastening her sandal, recalling coins of Larissa in Thessaly; some of groups, a man overthrown by a lion, a lion devouring a horse, a man standing and killing a kneeling woman, an episode of the contest of Achilles and Penthesilea; finally some purely Egyptian types, such as scarabs

with royal cartouches. This collection of moulds was probably made by a manufacturer with the purpose of reproducing them.—*Rev. Critique*, 1892, No. 47.

CHEMTOU-SIMITHU.—Excavations have been carried on at this site by M. Toutain: they were continued, thanks to a subvention from the *Acad. des Inscriptions*. In a letter to the Academy dated June 16, M. Geffroy gives an account of what had been discovered up to date. Nearly the whole of the ancient theatre was discovered in a few weeks. In the space occupied by the orchestra was a mosaic, with all the shades of Numidian marble, nine metres in diameter. These are interesting peculiarities in the construction and arrangement of the theatre. It is neither adossed to a hill nor completely isolated: the lower part of the hemicycle of steps which was completely buried, is well preserved. M. Toutain had commenced researches in two necropoli of the city hoping to find tombs and epitaphs of the freedmen and slaves employed in the neighbouring quarries. He had begun the excavation of a large building, perhaps a basilica or a curia, which appears to be about 40 metres long.

In a letter to the *Académie*, dated October 16, M. Toutain gives information of further discoveries, principally in the theatre and forum. A square was discovered 20 met. wide by 25 met. long, paved with large slabs of granite of greenish blue schist. It is situated in the midst of the ruins of several important monuments, notably a temple and a basilica, and is certainly the forum of Simithu. It is bounded on the south by a monumental exædron whose substructions of cut stone are still in place, and whose architectural decoration can be reconstructed by means of the bases, fragments, columns, capitals, and pieces of cornice which have come to light. Toward the north the forum is bounded by two structures separated by a narrow paved street.

A mile-stone found is important, as containing the name of Emperor Galerius, and dating from the short period when, after the abdication of Diocletian and Maximianus, Hercules, Constantius Chlorus, and Galerius were Augusti (May 1, 305, to July 25, 306). It has also a topographic interest as belonging to the cross-road from *Thuburbo major* to Tunis or Carthage, passing by Onellana and Uthina. M. Toutain has traced a system of bars, basins and cisterns, to supply with rain water a small Roman city, whose ruins are now called Bab-Khaled. It would appear as if the public buildings of the city were inhabited and made over at the Byzantine period.—*Revue critique* 1892, No. 44; *Revue arch.*, 1892, II, pp. 260, 266-7; *Chron. des arts* 1892, No. 34.

CHERCHELL.—M. Victor Waille has communicated to the *Acad. des Insc.* the first results of excavations on the field of manœuvres at Cherchell. Captain Hétet and lieutenant Perrin conducted them. Three mosaic pavements were copied: there was found a dedicatory inscription to the governor C. Octavius Pudens Caesius Honoratus, and some bronzes, among which were the base of a candelabrum and the handle of a chiseled vase, decorated with a helmeted bust of Roma, of the Byzantine period. The excavations are especially fruitful in small objects, pottery, bronzes, coins, etc.—*Chron. des arts*, 1892, No. 31; *Ami des mon.* 1892, p. 250.

DOUGGA.—The excavations carried on by MM. Denis and Carton, resulted in the clearing of the temple of Saturn; the discovery of the dedicatory inscription showing it to have been erected for the safety of Septimius Severus and Clodius Albinus; the finding of a large number of native steles; and the clearing of the theatre.

HADRUMETUM.—A small lead tablet covered on both sides with inscriptions, has been found in the Roman necropolis. It is a *tabella devotionis*, to be compared with others found at Hadrumetum, at Carthage and in Gaul. On one side is a series of magic names, accompanied by the figure of a genius with a rooster's head, standing in a boat and holding a torch, on the other side is an adjuration addressed to a certain *deus pelagicus arius*: infernal maledictions are called down on the horses and drivers of the green and white factions of the circus. There was a god or genius named Taraxippos, "the scarer of horses," as M. Heuzey remarks.—*Rev. arch.* 1892, II, p. 267.

MAKTAR.—M. Border exhumed from the mines of the basilica, next to the amphitheatre, four fragments of an imperial dedicatory inscription, and a most interesting altar bearing a dedication in eighteen lines on the occasion of the sacrifice of a bull and a ram for the safety of an Emperor, whose name is hammered out: M. Doublet conjectures him to have been Elagabalus.—*A. d. M.* 1892, p. 109.

SOUSSÉ.—In the neo-punic necropolis, on which the camp is situated, two entire vases and 28 fragments of vases were found, decorated with painted inscriptions. In the Roman necropolis, along the Kairwan road, several interesting discoveries were made, among them a hypogaeum containing several frescoes in fair preservation, containing curious figures and inscriptions, and also some inscriptions on marble or stucco.—*A. d. M.* 1892, p. 109.

TEBOURSOUK.—MM. Denis and Carton have excavated the megalithic necropolis of Teboursouk, whose tombs are stone circles, with one or more small dolmens in the centre.—*A. d. M.* 1892, p. 109.

TUNIS.—Hans von Behrs has contributed to the *Vossische Zeitung* a report on the museum of the Bardo near Tunis. A summary of it is given in the *Berlin Philologische Wochenschrift*, November 19.

ALGERIA.

M. de la Blanchère reports that in Algeria M. Gauckler investigated in 1891 the provinces of Algiers and Constantine, and spent some time at Cherchell whose antiquities he studied and partly published alone or in collaboration with M. de Waille. He planned at the same time an excavation. M. Marye was charged with the plan for organizing, for the first time, a collection of mussulman art, of native industrial art, and of Turkish and Arabic monuments.

The work regarded as most pressing by M. de la Blanchère in 1891 was the publication of African museums. The first series of the *collections du musée Alaoui* was almost completed : the *musées d'Oran* and *de Constantine* were in the press, following the *musée d'Alger* published in the preceding year. The general catalogue will be drawn up as each establishment is definitively organized. The first place belongs to the Bardo museum whose catalogue had already been partly compiled by M. de la Blanchère. The museum of Oran, under its conservator, Demaeght, has been finally organized, and occupies a fine building given by the city. It has been enriched by several additions, notably the famous inscription of king Masuna. The museum of Constantine has received among other things, the results of an interesting excavation made at Collo, especially some curious vases with female silhouettes. The museum of the Bardo can, however, never be rivalled by any of the museums of Algeria. The immense palace is already nearly full, although the museum in 1891 was but four years old. The large hall is full, with its nine large cases ; there are about 500 square metres of mosaics, 50 statues of large fragments, about 1200 inscriptions, and a multitude of small objects.

TIPASA.—The local curate, M. l'Abbé Saint-Gérard, has made some important excavations in an early Christian church. He found that the altar was placed at the end opposite the apse on a kind of platform or *béma* attached to the wall. Several inscriptions were found set into the mosaic pavement. One is the epitaph of Alexander, a bishop of Tipasa, another the dedication of the construction by him. To this bishop is attributed the merit of grouping about the altar the tombs of certain "righteous ancients," *justi priores*, by whom are undoubtedly meant his predecessors in the Episcopacy.—*Chron. des arts*, 1892, No. 14.

Professor Gsell assisted in the excavations above described and added further details in a communication to the *Académie des Inscriptions*. The building mentioned was a funerary chapel built to the east of Tipasa by Bishop Alexander to contain the tombs of his predecessors. Near by a Christian sarcophagus was found with reliefs of Christ giving the law, Moses striking the rock and other subjects.

In the same locality is the basilica of Saint-Salsa erected over her tomb. Built in the fourth century, it was decorated in the middle of the fifth by Potentius, probably a bishop; and enlarged in the second half of the sixth. It was still an object of veneration in the seventh century.—*Chron. des arts*, 1892, No. 28.

ASIA.

HINDUSTAN.

MUHAMMADAN COINS.—Mr. S. Lane-Poole has completed his "Catalogue of the Coins of the Mogul Emperors of Hindustan in the British Museum," dating from 1525, the invasion of Buber, to the establishment of British currency in 1835.

It describes over 1400 coins, chiefly gold and silver, of this splendid coinage. "In his introduction Mr. Lane-Poole deals with various historical, geographical, and other problems suggested by the coinage, and with difficulties of classification presented by the early imitative issues of the East India company and the French compagnie des Indes." This volume, the fourteenth, completes the cataloguing of all the Muhammadan coins in the museum.—*Journal Royal Asiatic Society* 1892, p. 425.

INDIAN NUMISMATICS.—Mr. Rodgers, Honorary Numismatist to the government of India, has finished his "Catalogue of the Coins with Persian or Arabic inscriptions in the Lahore museum," and practically finished his "Catalogue of the Coins in the Calcutta museum." His own immense collection has now been purchased by the Punjab government, and he has nearly completed his catalogue of that.

These catalogues will be of very great importance alike for the numismatic and for the modern history of India.—*Journ. Royal Asiatic Society*, 1892, p. 425.

NEW VARIETY OF MAURYA INSCRIPTIONS.—Prof. Buhler has made a very careful study of impressions of nine votive inscriptions from the reliquaries discovered by Mr. Rea in the ruined stupa of Bhattriprolu in the Kistna District (Madras). He has made out their contents, and has arrived at the conclusion that they are written in a new variety of the Southern Maurya or Lāt alphabet. Twenty-three letters of

these inscriptions agree exactly with those ordinarily used in the edicts of Asoka which have long been held to belong to the first attempts of the Hindus in the art of writing. Four letters are entirely unusual, while the lingual I is introduced, which does not occur in Asoka's inscriptions. Further peculiarities are presented in the notation of the medial and final vowels. The appearance of the letters would indicate that the Bhāttiprolu inscriptions probably belong to a period only a few decades later than that of Asoka's edicts. By a comparison of these inscriptions with Asoka's edicts, and with the inscriptions of Nāvāgṛāt, Hathegūmplia, Bharhut and Triana, it becomes evident that they hold an intermediate position between the two sets, but are much more nearly related to those of the third century B. C. than those of the second. If this be true, the date of the Bhāttiprolu inscription cannot be placed later than 200 B. C., and the inscriptions themselves prove that several distinct varieties of the Southern Maurya alphabet existed during the third century, B. C.

This fact would remove one of the strongest arguments in favor of the theory that writing was introduced into India during the rule of the Maurya dynasty—*i. e.*, the absence of local sorts of letters in which the edicts of Asoka were written in places widely separated, for this may be explained by a desire to imitate as closely as possible the character of the original edict.

If then the Bhāttiprolu inscriptions show a system of characters radically different from those of Asoka's edicts and at the same time in all probability coeval with them a strong point is gained for the side of those who are of the opinion that the introduction of writing into India took place centuries before the accession of the Maurya Dynasty. It is a curious fact that of all the anomalous letters in the Bhāttiprolu alphabet not one bears any trace to the later alphabets of India, all the characters of which are derived from those of Southern Maurya. The language of these inscriptions is a Prakrit dialect and is closely connected with the literary Pali.—*Journ. Royal Asiatic Society*, 1892, p. 602.

THE INDIAN HELL.—In a number of the *Journal Asiatique* (Sept., Oct., '92), M. Léon Feer publishes an article entitled "*L'Enfer Indien*," in which he confines himself to the Buddhist hells, leaving the Brahmanic hells for another study. He avails himself of all previously printed matter and adds new material. His object is to group together and classify all the ideas on infernal punishments, on the crimes for which they are inflicted and their duration. There are separate chapters on: (1) the name and number of hells; (2) the eight large

hot hells; (3) the attribution of the hells to distinct crimes; (4) the small hells. There are many questions in connection with them which he leaves unsolved. Then come the cold hells: (1) the Chinese hells; (2) Southern hells; (3) the number and names of the cold hells (of both north and south); (4) the duration of one's dwelling in the various hells; (5) on the non-existence of the cold hells; (6) on the period of time spent in all the hells, etc. The main conclusions are, that: All Buddhists recognize eight burning hells, with ascending intensity, surrounded by secondary hells of numbers varying from four to sixteen. Beside those there are eight cold hells, but only in the North, their names being considered in the South as expressing merely the different periods of sojourn in the eighth hell. The number of hells is at least 12, at most 32.

ARCHAEOLOGICAL SURVEY.—The second volume of the new series of the Archaeological Survey of India is devoted to a catalogue of the antiquities and inscriptions in the North-Western Provinces and Oudh, compiled by Dr. A. Fuhrer. No part of India, not even the Panjab, is so crowded with historic spots, associated not only with the life and teaching of Buddha, and with the Hindu theogony, but also with the Muhammadan conquest. Most of the ground has already been worked over by Sir A. Cunningham and his assistants; but there are square miles of ruined mounds still almost untouched. We continually hear of finds of ancient coins made by peasants during the rainy season; but the author is careful to point out that what is now wanted is systematic exploration, like that of Mr. Petrie in Egypt. The present volume is based rather upon printed documents than upon original research, though it shows everywhere the traces of personal knowledge. Its object is to carry out the orders of the Government, by placing on record a catalogue of the existing monuments, classified according to their archaeological importance, their state of repair, and their custody. It is arranged in the order of administrative divisions and districts; but copious indices enable the student to bring together any particular line of investigation.—*Academy*, September.

A HISTORICAL DOCUMENT.—Dr. M. Aurel Stein, principal of the Oriental College at Lahore, has now ready for publication the first volume of his critical edition of the Rajatarangini, or Chronicles of the Kings of Kashmir, upon which he has been engaged for some years. This work, which was written by the poet Kalhana in the middle of the twelfth century, is of special interest as being almost the sole example of historical literature in Sanskrit. Hitherto it has only been known

from editions based upon corrupt MSS. written in Davengari, all of which show that they were copied from a MS. written in Sarada, the characteristic script of Kashmir. Dr. Stein has been fortunate enough to discover the original archetype, written in the latter half of the seventeenth century by a learned Pandit, on whose death the codex was divided among his heirs; but the fragments have been collected and entrusted to Dr. Stein for the purpose of the present edition. In a second volume Dr. Stein hopes to give exegetical notes on the text, with a commentary on matters of historical and antiquarian interest, and also (if possible) a map showing the ancient topography of Kash-mir.—*Academy*, September.

EPIGRAPHY.—In part ix of *Epigraphia Indica*—the organ for the publications of the inscriptions collected by the Archaeological Survey of India—Dr. James Burgess, the general editor, points out the scope of the work, and acknowledges the services of his collaborators. Out of a total number of about fifty papers, no less than twenty-one have been contributed by Prof. Bühler, of Vienna, and nineteen by Prof. Kielhorn, of Göttingen, both of whom served their apprenticeship in Sanskrit studies at Bombay. We are glad to learn that:

“The Government of India has sanctioned the continuance of the work in a second volume, and much progress has already been made in preparing the materials for it. It will contain a revised edition, with facsimiles, of the great inscriptions of Asoka by Prof. Bühler, who will also supply other papers on Jaina inscriptions from Mathura, on the Sanchi inscriptions, &c. The Government has secured an impression of the Badal pillar inscription, and, through the favor of Col. S. S. Jacob, of Jaipur, rubbings of the Harsha inscription have been obtained, which, together with others, have been edited by Prof. Kielhorn. Muhammadan inscriptions have hitherto been overlooked, or but sparingly edited. It is intended to give them a place in the new volume, for which two series of considerable length [from Delhi and from Bengal] have already been prepared [by Dr. Paul Horn].”

—*Academy*, September.

THREE NEW INSCRIPTIONS OF ASOKA.—At a meeting of the *Acad. des Inscriptions* (May 6), M. Séna^t called attention to the historic importance of three newly-discovered inscriptions of Asoka Piyadasi and the modifications which their discovery must make in generally received ideas. They prove the diffusion of Aryan civilization in the very centre of Southern Dekkan, at a far earlier date than could have been supposed. M. Séna^t’s paper has been published in the *Revue Archéologique* (May-June, 1891).

The inscriptions were discovered by Mr. Lewis Rice, Director of archæology in Mysore, in the course of a survey of the Chitaldrung district and published by him. They were inscribed on immense boulders, several miles apart on the banks of Chinna Hagari, not far from the city of Mysore, a little above Bellary. They take us, therefore, seven degrees further south than any of the hitherto known inscriptions of the famous Maurya ruler, none of which had been found south of Guzerat and Ganjam. They are in the same characters and the same Pali or Prakrit language. The texts are now entirely new. They are new versions of the edict of which three copies were found as early as 1877 at Sahasaram, Rupnath, and Bairath. Mr. Rice distinguishes his three inscriptions as those of Brahmagiri, Siddhapur and Jatinga Rāmesvara: they present an identical text, that of Brahmagiri being the best preserved. They differ, however, notably in their text from the inscriptions of the Sahasaram-Rūpnāth group and shed much light upon them. Dialectically speaking they belong in general to the same series as those of Sahasaram-Rūpnāth with interesting differences.

This discovery is an epoch-making one in Indian archæology. Piyadasi speaks, it is true, in his edicts of his relations with the distant lands of Kerala and Pandya, and his propaganda went as far as Ceylon: but the present inscriptions were found at a distance of some 300 kilom. from the coast. It is true that here he does not speak in his own name, but in that of the local authorities, but his suzerainty is clearly expressed. They enable us to antedate by several centuries the diffusion in this region of the civilization and religion of the Hindu Aryans.

BUDDHIST STUPAS IN THE KISTNA DISTRICT (MADRAS).—Mr. Rea, Superintendent Archæological Survey, Madras, sends papers to the chief secretary to government, dated Bangalore, 10th May 1892.

He reports excavations carried out at four Buddhist stūpas in the Kistna district, the inspection of all catalogued mounds in the Repalle taluk and the discovery by some diggers, of a curiously carved monolithic pillar near the Siva temple at Bezwada.

I. GUDIVĀDA.—The first stūpa, that of Gudivāda, was found to be badly demolished, narrow trenches dug at different points revealed the rough faces of solid brick wall from 9 to 11 feet in height, with foundation 3 feet below the surrounding ground level.

The ground covered measures about 140 square feet, in the centre of the mound the remains of a dome constructed of solid brick work are found in fragments of courses of brick in circular rings. He refers to the finding of four relic caskets in this spot at the time of demolition.

Near the stūpa is the site of the ancient village and fort; long ridges of earth, in form of a square, mark the position of the walls; within these, various articles have been turned up, large bricks, broken sepulchral urns and grain jars, together with beads of various material and Buddhist lead coins, both round and square; they bear the lion and the dūgoba, emblems of the Andhra dynasty. The inscriptions of some are preserved.

II. GHANTASALA.—At Ghantasala is a mound 112 feet in diameter and 23 feet in height; the excavations here disclosed the remains of a stūpa from which the complete plan was determined. In the centre is a solid cube of brick work 10 feet square, enclosed in a chamber 19 feet square with walls over 3 feet in thickness; outside this is a circular wall 3 ft. 6 inches thick, 55 feet 10 inches in diameter, this is enclosed in another circular brick wall 18 feet 3 inches thick, with a diameter of 111 feet; this was the main outer wall of the structure, the exterior surface bore a *chunam* facing. About the base is a raised procession path 5 feet 7 in. broad, and 4 feet 6 in. high, a projection is found at each of the cardinal points. The inmost squares are connected by walls 2 feet 4 in. thick, running parallel to these sides from the centre and corners, the cells formed by the intersections of these walls are packed with mud.

The fact that the main walls, *i. e.*, those of the squares and circles, are thicker than the others may indicate that they were carried up to form stories, or they may have been simply to strengthen the dome, if the exterior wall was carried up in that form. Further excavations in the mound discovered a marble slab carved with the Supada, a piece of a carved top rail panel and a number of carved slabs.

When the brick work was excavated a well 6 inches square filled with earth was found under 3 feet of solid brick work. Among the debris, at the top, were found pieces of a broken *chatti*, and a number of small articles, beads and a coin, which it had probably contained. Just below these was a *chatti* of red earthenware, 4½ in. in diameter, with a semi-circular lid, filled with black earth. Within this was a glazed *chatti* 2½ in. in diameter, and 1½ in. in height. It contained numerous leads, bits of bone, small pearls, bits of gold leaf and small pieces of mineral.

A number of marble sculptures have been removed from the stūpa of Ghantasala, and are now in the village. Among them are several pieces carved with lotus flowers, and other ornaments and inscriptions, square and circular moulded vases, a circular base carved with horses, elephants and other animals, an umbrella, a panel with rail and figures, and two carved slabs. Other remains found in

and near Ghantasala are an "ancient brass *dipa*, with a Telugu inscription and a small brass image of Siva" now in the temple, a "small *chakra* and a *trisula*, each with pillar base." Brick walls and brick debris are found all about the neighborhood, but so demolished as to make it impossible to determine what the buildings were.

III. BHATTIPROLU.—On the report in the stūpa of Bhattiprolu, a former letter is referred to in which an account is given of certain inscribed caskets, and other relics found in the centre of the dome some time before. The reports continue with the account of further excavations by means of trenches. Those about the exterior discovered an unbroken procession path at the small east quadrant, the face of the dome too at this point is intact to a height of over 5 ft. In the trenches at the north side there was found "two pieces of a marble umbrella, having a curve of a radius of 1 foot 6 in., a small piece of a pilaster base from a slab, a pilaster capital with horses and riders, and the half of what had been a large slab" carved with the lower portion of a draped figure.

At some distance from the basement, or procession path, the remains of six marble bases of the rail were found standing in position—they are 1 ft. 11., by 12 in., by 1 ft. 10 in., in height, spaced by a distance of 1 ft. 7 in. in each, they are sunk 1 ft. 6 in. below the brick floor, and rest on a broad marble slab.

A large number of ancient sites and mounds were examined in the neighborhood of Repalle. At *Anantaiarum*, *Buddhanī*, *Chandavōlu* and *Puapuā*. Considerable surface has been excavated for various purposes; the earth, a kind of black mud, is found to be thickly mixed with broken pottery and bones of animals; occasionally a pillar or other building stone is turned up. At *Mōrakōru*, copper, lead and rarely gold and silver coins are found mixed with the broken pottery.

At *Krudarnudi*, *Maudura*, *Mālpārn* and *Periarli*, mounds were examined, the earth was found to consist of black mud mixed with pottery and ashes. The mounds differ only in extent, and portions of several have been removed.

BHATTIPROLU.—A BUDDHIST STUPA.—Mr. Rea during last season examined the remains of a stūpa at Bhattiprolu in the Kistna district, the marble casing of which had been used by the Canal engineers; and in it he has made discoveries of very considerable interest.

He found the stūpa had been a solid brick building 132 feet in diameter, surrounded by a procession path about eight feet wide. It must thus have been of very nearly the dimensions of the Amarāvati stūpa. Fragments or chips only of the outer casing of marble

were found in the area he excavated. When the dome and portions of the drum had been previously demolished for the materials, inside the dome there was found "a casket made of six small slabs of stone dove-tailed into one another, measuring about $2\frac{1}{4}$ feet by $1\frac{1}{2}$ by 1 foot; inside this was a clay *chatti* containing a neat soap-stone casket, which enclosed a crystal phial. In this latter was a pearl, a few little bits of gold leaf, and some ashes." Mr. Rea considered that there might still be another deposit of relics; and having discovered the centre of the original brickwork, he found there a shaft or well $9\frac{1}{2}$ inches in diameter filled with earth, which went down about 15 feet. Following this he found at one side near the bottom a stone box about 11 inches by 8 and 5 inches deep, with an inscription round the upper lip. Inside was a small globular blackstone relic casket, two small hemispherical metal cups a little over an inch in diameter, with a gold bead on the apex of one, and the bead (fallen out) of the other; another small bead, two double pearls, also four gold lotus flowers 1.2 inch in diameter, two *trisulas* in thin plates 1.2 by 1 inch, seven triangular bits of gold, a single and a double gold bead—the weight of these gold articles being about 148 grains. There was also a hexagonal crystal 2.56 inches long by 0.88 inch in diameter, pierced along the axis, and with an inscription lightly traced on the sides. The stone relic casket measures $4\frac{1}{2}$ inches each way, the lid fitting on with a groove, and it contained a cylindric crystal phial $2\frac{1}{2}$ inches in diameter and $1\frac{1}{2}$ inches high, moulded on the sides and flat on top and bottom; the lid fitted in the same way as that of the casket. Inside was a flattish piece of bone—possibly of the skull—and under the phial were nine small lotus flowers in gold leaf; six gold beads and eight small ones; four small lotus flowers of thin copper; nineteen small pierced pearls; one bluish crystal bead; and twenty-four small coins in a light coloured metal, possibly brass, smooth on one side and with lotus flowers, *trisulas*, feet, &c., on the obverse. These had been arranged on the bottom and attached in the form of a *svastika*.

Two and a half feet below this was a second deposit on the opposite or north side of the shaft. The central area of the cover, in this case, has an inscription in nineteen lines with two lines round it—the letters being filled in with white. In the lower stone was a receptacle $6\frac{1}{2}$ inches deep, by $7\frac{1}{2}$ in diameter, having a raised rim $1\frac{1}{2}$ inches broad, bearing another inscription of two lines on the upper surface—the letters also filled in with lime. The cavity was nearly filled with earth, and contained a phial $1\frac{1}{2}$ inches in diameter and $2\frac{1}{4}$ inches high, with a lid moulded like a *dagoba*. The phial and lid were lying separate, and

there was no sign of a relic. Mixed with the earth were 164 lotus leaves and buds, two circular flowers, a trisula and a three-armed figure like a *svastika*, all in gold leaf, two gold stems for lotus flowers, six gold beads, and a small gold ring—weighing, collectively, about 810 grains; also two pearls, a garnet, six coral beads, a bluish, flat, oval bead, a white crystal bead, two greenish, flat, six-sided crystal drops, a number of bits of corroded copper leaf in the shape of lotus flowers, a minute umbrella, and some folded pieces about 2 inches by 1 $\frac{1}{2}$, showing traces of letters or symbols pricked upon them with a metal point, but too corroded to permit of unfolding or decipherment.

Next, at a slightly lower level on the east side of the shaft, he came upon a third black stone cover, with an inscription of eight lines cut on the under surface in a sunk, circular area in the centre. The lower stone again bears an inscription round the rim of the cavity in one line—the letters being whitened. The receptacle was 5 $\frac{1}{4}$ inches deep, 7 $\frac{1}{2}$ wide at the top, and 5 at the bottom. It was also nearly filled with earth, and contained a crystal phial similar to that in the second, the lid lying apart; but close to it was the relic casket, perhaps of chrysolite, less than half an inch each way by three-eighths, in which is drilled a circular hole 0.28 inch in diameter, closed by a small, white crystal stopper with hexagonal top. The neck is covered with gold leaf, and a sheet of the same was fixed outside to the bottom. This unique casket contains three small pieces of bone. With it were found a bluish bead $\frac{1}{2}$ inch long, a smaller one, and one of yellow crystal, a small hexagonal crystal drop, slightly yellowish in colour, a flat one of white crystal, a bone bead, six pearls, thirty-two seed pearls—all pierced, thirty lotus flowers, a quatrefoil, and a small figure of gold leaf.

The alphabet of the inscriptions presents features of peculiar interest, which I leave to be discussed by Prof. Bühler.—Jas. Burgess in *Acad.* May 21.

N. B.—Further details are given under the headings “*New variety of Maurya inscriptions*, and also under “*Buddhist Stupas in the Kistna district*.”

GAUHATI.—ASSAM.—Mr. Joseph Chunder Dutt has reprinted from the *Indian Nation* (Calcutta) an account of an archaeological visit to Gauhati, the ancient capital of Assam. The temples, &c., he describes mostly date only from the eighteenth century, as is shown by the inscriptions which he is careful to quote. There are, however, many ruins of older buildings and fragments of sculpture, which would perhaps repay more detailed examination. The destruction of some of these is due to the misdirected activity of British engineers.

—*Academy*, Feb. 6.

PANJAB.—REMAINS OF ANCIENT BUDDHIST TEMPLES.—The *Journal of the Royal Asiatic Society* for October, 1892, contains a note in "Ancient remains of Temples on the Bannu Frontier," an unfrequented part of the Panjab. The ruins of two temples stand on a hillock rising from the Indus. The tradition with regard to them is that the Pandwas retired here to spend twelve years of exile after being defeated by the Kerwá. A short distance from these ruins is the site of a third temple now completely demolished. This temple was built of bricks of light pressed (?) clay about 12x9x3 inches in size. On breaking some of the bricks they were found to bear distinctly the impression of tree leaves, and brought under the influence of a petrifying spring which exists not far from the spot.

The remains are undoubtedly of great antiquity, and appears to have been Buddhist temples of the tall, conical kind. Their Buddhist origin is made certain by the eight-leaved lotus ornaments which characterize the carvings.

THIBET.

Mr. Rockhill, who made himself so well-known by his first expedition to Thibet, is at present engaged in a second journey, in the hope of this time reaching the capital Lhassa.

The Duke of Orleans and his companion have already published the results of their journey undertaken shortly after Mr. Rockhill's first.

CHINA.

THE GAME OF WEI-CHI.—At a meeting in Shanghai of the Chinese Branch of the Royal Asiatic Society, M. Volpicelli read a paper on "The Game of Wei-Chi," the greatest game of the Chinese, especially with the literary class and ranked by them superior to chess. Like chess, this game is of a general military and mathematical character, but is on a much more extensive scale, the board containing 361 places and employing nearly 200 men on a side. All of the men, however, have the same value and powers.

The object is to command as many places on the board as possible—this may be done by enclosing empty spaces or by surrounding the enemy's men. Very close calculation is always essential in order that a loss in one region may be met by gains in another, thus employing skillful strategy when the contestants are evenly matched. The game has come down from great antiquity, being first mentioned in Chinese writings about B. C. 625. It was in all probability intro-

duced by the Babylonian astronomers who were at that time the instructors of all the East.—*Journal of the Royal Asiatic Society*, 1892, p. 421.

CENTRAL ASIA.

EXPEDITION OF M. DUTREUIL DE RHINS.—The *Académie des Inscriptions* sent M. Dutreuil de Rhins some time since on an archaeological expedition to Further Asia. Beside the income of the Gamier fund previously accorded to him for the purpose, it has accorded him a grant of 30,000 francs. The last news from him was a report.—*Chron. des Arts*, 1892, No. 22.

THE ORKHON INSCRIPTIONS.—We quote from the *Times* the following report of two papers read before the Oriental Congress, in the section of China and the Far East:

"A paper was contributed by Mr. E. Delmar Morgan on 'The Results of the Russian Archaeological Researches in the Basin of the Orkhon in Mongolia.' Mr. Morgan drew attention to a splendid atlas of plates presented to the Congress by Dr. Radloff, of St. Petersburg, containing photographs and facsimiles of inscriptions copied by the members of the archaeological expedition sent by the Imperial Academy of Sciences to investigate the ruins on the Orkhon. These ruins comprise (1) the remains of an ancient Uighur town west of the Orkhon, (2) the ruins of a Mongol palace to the east of that river, and a large granite monument shattered into pieces. Excavations were also made of the burial places of the Khans of the Tukiu or Turks inhabiting this part of Asia previously to the Uighurs, who drove them out. The earliest inscription dates from 732 A. D., and refers to a brother of the Khan of the Tukiu mentioned in Chinese history. Additional interest attaches to these inscriptions owing to the fact that some of the characters are identical with those discovered on the Yenissei. The expedition to which the paper referred visited the monastery of Erdenitsu, and found there a number of stones with inscriptions in Mongol, Tibetan, and Persian, brought from the ruins of a town not far off. These ruins have been identified with Karakoram, the capital city of the first Khans of the dynasty of Jenghiz Khan.

"Prof. Donner wished to present to the Congress a publication by the Société Finno-Ougrienne at Helsingfors, containing inscriptions from the valley of the Orkhon, brought home by the Finnish Expedition in 1890. There are three large monuments, the first erected 732 A. D., by the order of the Chinese Emperor in honour of Kiuh-Jeghin, younger brother of the Khan of the Tukiu (Turks). On the

west side it has an inscription in Chinese, speaking of the relations between the Tukiu and Chinese. The Tartar historian, Ye-lu-chi, of the thirteenth century, saw it and gave some phrases from the front of it. On all the other sides is a long inscription of 70 lines in runic characters, which cannot be a mere translation of the Chinese because it numbers about 1400 words, while the Chinese inscription contains only about 800. The other monument has also a Chinese inscription on one side, but greatly effaced. On the other sides are runic inscriptions in 77 lines at least. This monument was erected, by order of the Chinese Emperor, in honour of Mekilkn (Mogulen), Khan of the Tukiu, who died 783 A. D. About two-thirds of its runic inscription nearly line for line contains the same as the first monument, a circumstance of importance for the true reading of the text. The third monument, which has been the largest one, was destroyed by lightning and shattered into about fifty fragments. It is trilingual—viz., Chinese, Uighur, and runic or Yenissei characters. On comparing the texts they are found to contain many identical words and forms, proving that the languages were nearly identical. M. Devéria thinks that this is the memorial stone which the Uighur Khan, 784 A. D., placed at the gateway of his palace to record the benefits the Uighurs had done to the Chinese Empire. Concerning the characters of these inscriptions they show small modifications. The tomb inscriptions at Yenissei seem to be the more original; some characters have been altered in the Tukiu alphabet and also in the third monument, representing in that way the three several nations—the Tukiu, the Uighurs, who followed them, and the Hakas, or Khirgiz, at Yenissei. A comparison of the characters themselves with the alphabets in Asia Minor shows that about three-fourths of them are identical with the characters of the Ionian, Phrygian, and Syrian [?]. The other part has resemblances with the graphic systems of India and Central Asia. We can now expect that the deciphering of these interesting inscriptions will soon give us reliable specimens of the oldest Turk dialects."

—Academy, Sept. 17.

SIMFEROPOL.—At Simferopol Prof. Messelowski has made the most interesting discovery of a Scythian warrior's grave, dating probably from about the second or third century. The skeleton lay on its back facing the east, on the head was a cap with gold ornaments, and little gold plates were also fixed to portions of the dress. Near the head stood two amphorae and a leathern quiver containing copper-headed arrows. At the feet were the bones of an ox, an iron knife, four amphorae and some lances—these were in a very rusty condition. The quiver had a fine gold-chased ornament upon it representing a flying

eagle gripping in its talons a small animal. It is admirably worked. The skeleton itself fell to pieces immediately.—*Biblia*, Oct., 1892.

SEMITIC EPIGRAPHY AND ANTIQUITIES.—M. Clermont-Ganneau has published in the *Journal Asiatique* for 1892, No. 1, a series of the discoveries and investigations made in Semitic epigraphy and antiquities during the year 1891. It is the address by which he opened his course at the Collège de France. He commences with Phoenicia and notices besides such discoveries as are reported in the Journal, such books as Goblet d'Aviella's *La migration des symboles*, which is a comparative study of Oriental art symbols, and Ph. Berger's *Histoire de l'écriture dans l'antiquité*, which treats especially of the development of the Phoenician alphabet. As an original supplement he describes some antiquities recently sent to him, which had been found in the necropolis of Sidon, *e. g.*, a terracotta head of Egyptian style; a smaller head of Cypriote style; a statuette of Bes; two gold car-rings; bottom of a Greek vase with a Phoenician inscription; piece of adiorite sarcophagus cover of Egyptian origin, probably that of a king of Sidon. Another complete anthropoid sarcophagus from the same site at Sidon has been sent to Constantinople. Still another sarcophagus of this type has been found in Spain, at Cadiz, the ancient Gades. Its importance is incalculable, as it proves for the first time the passing of the Phoenicians to Spain. Mr. Clermont-Ganneau then takes up Aramaean antiquities and inscriptions, especially those of Palmyra. Among them are a number secured by the writer himself; they are three fine monumental funerary inscriptions and six funerary busts of men and women, two of which are finely executed and remarkably well preserved; all are inscribed and several are dated. He notices the publication of the valuable *Journal d'un voyage en Arabie* (1883-1884) by Charles Huber, in which the five note-books of the traveller are reproduced. It will be remembered that he was treacherously murdered during his journey. Dr. Euting in his *Sinaitische Inschriften* publishes 67 inscriptions copied by him in the Sinaitic peninsula. His readings are very careful and accurate. Three of the texts are dated and are important in view of the controversy as to the age of all these inscriptions.

Palestine and Hebrew antiquities are very fully treated. M. Clement-Ganneau reads the famous Lachish inscription $\gamma\sigma\eta\gamma = ad libandum$; he calls attention to hematite weight with an early inscription found at Sebaste; mentions the vandalism perpetrated in cutting away the famous Pool of Siloam inscription, *etc.* He notes the importance of the discovery by MM. Lees and Hanauer in the subterranean structures at Jerusalem called "Solomon's Stables," of the spring of an

immense ancient arch, analogous to Robinson's arch. It introduces quite a new element in the complicated problem of the Jewish Temple. Mr. Wrightson, an English engineer, concludes that the two arches or bridges formed part of a continuous system of parallel arches which occupied, between the two east and west walls, the substructure of the entire southern part of the esplanade of the temple. Mr. Schick's investigations are carefully noticed. Finally praise is given to the new publication of the Abbé Vigouroux, *Dictionnaire de la Bible*.

ARABIA.

A HISTORY OF YEMEN.—The British Museum acquired in 1886 the MS. of Omārah's 'History of Yennen,' a work of which it was long feared that no copy was at the present day in existence. Omārah's 'History' extends over a period of about three hundred and fifty years. It commences with the foundation of the city and principality of Zabid in the ninth century, and extends down to the eve of the conquest by the Ayyūbites in the twelfth. Mr. Henry C. Kay, a member of the Council of the Royal Asiatic Society, has prepared the MS. for publication, together with an English translation, notes and indices. The volume also contains, besides other similar matter, an account and genealogical list of the Imāms of Yemen, down to the thirteenth century, derived from the Zeydite MSS. recently added to the British Museum library.—*Athenæum*.

COINS OF THE BENU RASOOL DYNASTY OF SULTANS.—Out of the fourteen sovereigns who composed the Benu Rasool dynasty, we are in possession of the coins of only eight, and these the first eight; their inscriptions are in Arabic, and it is by no means easy to decipher all of them. The mints of these are: Aden, Zebid, El-Mahdjām, Thabat, Sana and Taiz, and each is characterized by a particular figure, a fish for Aden, a bird for Zebid, a lion for El-Mahdjām, and other symbols. There are also noticed several coins struck by rebels under the Benu Rasool dynasty.—*Revue Numismatique*, III s. tom. 10, III trim. 1892, p. 350.

BABYLONIA.

A BAS-RELIEF OF NARAM-SIN.—At a meeting of the Acad. des *Inscriptions* M. Maspero exhibited a photograph of a Chaldean bas-relief from Constantinople. It was erected by, and bears the name of King Naram-sin, who reigned over Babylonia about 3800 b.c. Though much mutilated, what remains shows workmanship of a refined kind. It represents a human figure standing, clothed (as on the most

ancient cylinders) with a robe that passes under one arm and over the shoulder, and wearing a conical head-piece flanked with horns. The general appearance strikingly recalls Egyptian monuments of the same date. The relief is extremely low, the lines clear, but not stiff. There is no muscular exaggeration as is often the case in the cylinders. Naram-sin, like his father, Sargon I, has left the reputation (perhaps legendary) of a great conqueror; a campaign against Magan is attributed to him. M. Maspero was disposed to explain the style of the bas-relief by the Egyptian influence. It differs widely from the sculptures of Telloh, which are less refined and artistically advanced. But these, though of later date, come from a provincial town, not from a capital. M. Menant mentioned that the collection of M. de Clerq contains a cylinder, also of remarkable workmanship, with an inscription with characters of the same style as those on the bas-relief in question; but it bears the name of Sargani, king of Agyadi, who is several generations earlier than Sargon I. Both of these are examples of an art which was never surpassed in Chaldea.—*Academy*, Oct. 15; *Chron. des Arts*, 1892, No. 33.

TELLOH.—BABYLONIAN SCULPTURE.—The later excavations of M. de Sarzec at Telloh, in so far as they concern sculpture, are treated by M. Heuzey in some communications to the *Acad. des Inscriptions*. M. de Sarzec has reconstructed from some fragments a series of reliefs relating to King Ur-Nina, the ancestor of King E-anna-du, who is commemorated in the *stele of the vultures*. The sculptures of Ur-Nina are of rude and primitive workmanship and belong to the earliest period of Babylonian sculpture. The king is represented more than once, either carrying on his head the sacred basket, or seated and raising in his hand the drinking-horn. Around him are ranged his children and servants, all with their names inscribed upon the drapery. Among them is A-kur-gal, who is to succeed his father, replacing another prince, his older brother. The reunion of these fragments has given us an historic and archaeological document of the highest antiquity.—*Revue Critique*, 1892, No. 44.

At a meeting of the *Acad. des Inscr.* M. Heuzey read a paper upon the "Stèle des Vautours." M. de Sarzec has been able to find and piece together several additional fragments, from which it appears that the name of the person who set up the pillar was E-anna-du, king of Sirpula, son of A-kur-gal, and grandson of King of Ur-Nina. He is represented in front of his warriors, beating down his enemies, sometimes on foot, sometimes in a chariot, of which only a trace remains. The details of the armor resemble in some respects that of

the Assyrians of a much later date. From what can be read of the inscription, it seems that the conquered enemies belonged to the country of Is-ban-ki. There is also mention of a city of Ur, allied with Sirpula. The pillar was sculptured on both faces. On the reverse is a royal or divine figure, of large size, holding in one hand the heraldic design of Sirpula (an eagle with the head of a lion), while the other brandishes a war-club over a crowd of prisoners, who are tumbling one over another in a sort of net or cage. In illustration of this scene, M. Henzey quoted the passage from Habakkuk (i. 15), describing the vengeance of the Chaldeans: "They catch them in their net and gather them in their drag"—*Academy*, Sept. 3.

THE BABYLONIAN STANDARD WEIGHT.—Prof. Sayce writes: "Mr. Greville Chester has become the possessor of a very remarkable relic of antiquity, discovered in Babylonia, probably on the site of Babylon. It is a large weight of hard green stone, highly polished, and of a cone-like form. The picture of an altar has been engraved upon it, and down one side runs a cuneiform inscription of ten lines. They read as follows:

"One manch standard weight, the property of Merodach-sar-ilani, a duplicate of the weight which Nebuchadrezzar, king of Babylon, the son of Nabopolassar, king of Babylon, made in exact accordance with the weight [prescribed] by the deified Dungi, a former king."

The historical importance of the inscription is obvious at the first glance. Dungi was the son and successor of Ur-Bagas, and his date may be roughly assigned to about 3000 b. c. It would appear that he had fixed the standard of weight in Babylonia; and the actual weight made by him in accordance with this standard seems to have been preserved down to the time of Nebuchadrezzar, who caused a duplicate of it to be made. The duplicate again became the standard by which all other weights in the country had to be tested.

The fact that Dungi is called "the deified" is not surprising. We know of other early kings of Chaldaea who were similarly raised to the rank of gods. One of them prefixes the title of "divine" to his own bricks; another, Naram-Sin, the son of Sargon, of Accad, is called "a god" on the seal of an individual who describes himself as his "worshipper." It is possible that in this cult of certain Babylonian kings we have an evidence of early intercourse with Egypt."—*Academy*, Dec. 19.

CATALOGUE OF BRITISH MUSEUM TABLETS.—Stored in the British Museum are some 50,000 inscribed pieces of terracotta or clay-tablets, forming the libraries of Assyria and Babylonia. The great impetus

given to cuneiform studies has made it necessary that the tablets should be catalogued, and the trustees have now issued a descriptive catalogue of some 8,000 inscribed tablets. The inscriptions in question come from the Kuyuryik Mound, at Nineveh. The tablets embrace every class of literature, historical documents, hymns, prayers and educational works, such as syllabaries or spelling-books, and dictionaries. The catalogues, of which the second is just issued, are prepared by Dr. Bezold.—*Biblia*, Sept., 1892.

ASHNUNNAK.—M. Pognon, French Consul at Bagdad, has announced to the *Acad. des Inscriptions* that he has discovered the exact location of the region called anciently the land of Ashnunnak. He declares that he is not yet ready to announce his discovery more exactly, but publishes several bricks with the names and titles of several princes of Ashnunnak hitherto unknown. These are Ibalpil, Amil and Nulaku.

PERSIA.

M. DE MORGAN'S RESEARCHES IN PERSIA AND LURISTAN.—In a communication to the *Acad. des Inscr.* M. de Morgan gives a report upon his mission in Persia and Luristan, of which the following are a few extracts. "In the valley of the Lar, I made a study of the subterranean habitations excavated in the rock and made a plan of the very ancient castle, Molla-Kölo, which once defended the pass of Vahné. Finally, in the ravine called *Āb-e-pardōma*, I discovered in the alluvion some stone instruments presenting very ancient paleolithic characters. At Amol, I studied the ruins of the ancient city and gathered some interesting collections containing quite a number of pieces of pottery and some bronzes of the xv century." "Near Asterabad there is a mound called *Khaighruch-tépē*. I attempted to make some excavations of this point; unfortunately my work here was arrested by order of the Persian government just when, after twenty days of working with sixty laborers, I had reached a depth of 11½ meters. In this excavation I found some human bones, some pottery, some whorls and some thin objects composed of bronze much decomposed; all in the midst of ashes and cooking-debris. At the bottom was a skeleton stretched upon a very regular bed of pebbles, and I am of the opinion that *Khaighruch-tépē* was primitively raised as a tomb and afterwards served for the construction of a village, the successive ruins of which coming to increase the importance of the mound. At a depth of 11½ meters I found more cinders and debris, indicating that I had not yet come to the level of the earliest works." "The *tépēs* are near together in the eastern part of the Mazanderan and in

the Turkoman steppe; but in the Lenkoran, the Ghilan and the western Mazanderan they are entirely wanting. It is concluded from this observation that the people who built here were not aborigines of the north of Persia, but that their migration moreover has left traces on the right and on the left of the Caspian. The Scythians of Herodotus present a very satisfactory solution for the problem of the Caspian *tépés*. . . . "From an archæological point of view the Lenkoran was absolutely virgin soil and the finding of the first tomb was not an easy task. Finally, after long and minute research in the forests, I discovered the necropolis of Kravelady, composed of dolmens almost completely despoiled, but in sufficiently good condition to permit me to organize the natives in research for burial places of the same sort. I at first encountered much repugnance on the part of the inhabitants to excavate the tombs; finally, with some money and very long explanations, I brought them to terms and, thanks to my tomb-hunters, I found and excavated the necropoli of Horil, Beri, Djonü, Tülü, Mistail, Hiveri, etc. These tombs present, according to their age, very different characteristics; the most ancient and at the same time the largest, contain rude arms of bronze. Those of the period following show the bronze well worked, iron, gold and silver being employed as jewels. Although we saw iron in very small quantities in the tombs of the second period, it is not until the third that it appears as the material of arms; at the same time, the jewels take the forms of animals, which change, as I have shown in the case of Russian Armenia in my preceding mission, indicates the appearance of a strange tribe possessed of special arts. During the last epoch all the arms are of iron. The pottery found in the tombs is glazed.

"As to the form of the monuments, it is very variable at different ages; there are some covered passages or chambers completely closed, some dolmens with openings like those of India. At the very time when my excavations were attaining their greatest importance I was compelled to discontinue them by order of the Russian administration and was obliged to leave the country, having only made a beginning in archæology. An *ukase* of the Czar reserves the excavations in all his great empire for the Archæological Society of St. Petersburg. But this interdict did not arrive until after I had excavated about two hundred and twenty tombs, so that we now possess more than fifteen hundred objects, vases, arms, trinkets of gold, bronze, silver, etc.

"At Moukri, thanks to the kindness of a Kurd chief, I was enabled to excavate a tomb which, although it held no objects of value, still

contained some interesting relics. I have not yet been able to assign a date to any of them." " During my stay at Moukri I set up a map on the scale of $\frac{1}{250000}$, and marked upon it all the ruins, mounds and ancient tombs.

" Although blockaded by snow at Haimadan I was able to visit the ancient Ecbatana and there acquired a small collection of Greek jewels and Chaldean cylinders. I found no trace whatever of the ancient palace; they told me that the last debris had been reduced to lime and that houses had been built over the rest. On the other hand, the trilingual inscription of the Elvend, the *Ghendj-nâméh*, is still admirably preserved, but the cold prevented me from taking a squeeze. After having visited and photographed the ruins of Dinâver, Kînghârer, Bisoutoun and several remains encountered on the route, I visited Tagh-é-Bostan, near Kirmanshan; I took numerous photographs and squeezes of the more interesting fragments, like the pahlavi inscriptions of the smallest monument. At Zohab, I took the inscriptions of Ler-é-poul and of Hourin-cheïkh-khan, made plans of the ruins of Ler-é-poul, those of the Sassanian palace of Kasr-é-Chirion and of Haouch-Ruri; drew up a map on a scale of $\frac{1}{250000}$ of the gates of the Zagros, and of the country around." " Having arrived at Houleilan, I found the remains of a large number of towns and castles of the Sassanian epoch, besides some very ancient *tépés*. At Chirvan, near the fort of the Poncht-é-Kouh, are the ruins of a Sassanian town. I made a plan of it. Near it is a great *tell* of unburnt brick. In the valleys, situated near the plain, in the passes are some *tells*, and it is near one of them that I had the good fortune to find more than eight hundred objects carved in flint. Beyond these *tells* which guard the frontier of the Semite border, the Poncht-é-Kouh does not contain a single ruin. In antiquity, as to-day, it was inhabited by nomads. On leaving the Poncht-é-Kouh, I entered the valley of the Kukha, where I encountered numerous ruins. I then advanced into Louristan, continually finding *tells*, of which the principal ones are those of Zakha and of Khorremâbâd. Finally arriving at Susiana, we again found civilization, but also a country well known and that does not form a part of my mission."—*Journal Asiatique*, No. 2, 1892, pp. 189-200.

COINS OF THE SATRAPS.—1. Money had been invented and was in circulation in the Greek cities of Asia Minor almost two hundred years, when Darius I introduced the daric. The Greek coins in circulation along the coast had not penetrated far from the Mediterranean, even the new Persian coinage was used chiefly in the commerce with the Greeks on the frontier, and for the payment of Greek mercenaries,

enrolled in the armies of the Great King. The interior of the empire, during the whole period of the Achaemenidae, continued to employ wedges of precious metals in exchange. The coinage of the Persian empire divides into four clearly defined groups, according to the direct authority of its issue. (1) The coinage of the Great King; (2) The coinage of the tributary Greek towns; (3) The coinage of the tributary dynasties; (4) The coinage occasionally struck for the satraps, chiefs of the Persian army. It is the last category that is described in the paper here summarized. The towns then, and the tributary dynasties, and, under some circumstances, the satraps enjoyed the right to coin money but only in electrum, silver and bronze; the great King reserved the exclusive right to issue coins in gold; and this principle became universally acknowledged, so that gold effectually became the unique standard of the Persian empire. The few departures from this rule are not worthy of consideration. The towns of Asia Minor paying tribute to the great King continued to issue money, just as they had during their independence, retaining their own types, and betraying in no way their subjection. The tributary kings placed under the surveillance of satraps were allowed various degrees of liberty in issuing coinage, according to their countries and to their varying relations to the Persian monarch; the dynasties of Caria, of Cyprus, of Gebal and of Tyre, like the tributary cities mentioned above, continued their old coinage, while those of Sidon and of Cilicia placed upon their coins, the figure of the Achaemenidean prince.

Besides the coinage already mentioned there exists a number of coins bearing the names of satraps, and the questions are raised, under what circumstances were these issued, and with what extraordinary powers was a satrap invested, who was permitted to issue money in his own name? The theory is advanced, that the satraps of the Persian empire never held the right to coin money in their capacity as satraps. All the instances we have of satrapal coins were issued by satraps invested with the command of armies. Fr. Lenormant says: "All the pieces known, which bear the names of high functionaries of Persia, mentioned in history, particularly those of Cilicia, should be ranged in the class of military coins; that is, coins issued by generals placed at the head of armies, on a campaign, and not as satraps exercising their regular powers." The only satrapies in which money was coined, before Alexander, are the following. The sixth satrapy, which comprised Egypt and Cyrenaica. The fifth satrapy or that of Syria, comprising Arabia, Mesopotamia, Syria, Phoenicia, Palestine and the island of Cyprus. The fourth satrapy or that of Cilicia, which acquired in the v century the states north of the Taurus. The

first satrapy or that of Ionia, comprising Pamphilia, Lycia, Caria, Pisidia, Ionia and Eolis. The twelfth satrapy, known as the satrapy of Sardis, or of Lydia. The thirteenth satrapy, known also as the satrapy of Phrygia, which comprised, besides the coast of the Hellespont, all the central region of Asia Minor between the Taurus and the Black Sea. This huge province was divided in the fifth century into the satrapies of Greater Phrygia, Lesser Phrygia, and Cappadocia.

2. The coinage in circulation in Egypt, during the Achaemenidean supremacy was all of foreign origin, the staters of the Kings of Tyre and Sidon and the tetradrachmas of Athens. The commerce with Greece, and especially the incessant wars in which Greek mercenaries were largely employed, tended to make Athenian silver popular in the eastern countries. For the pay of these mercenaries, the Persians and Egyptians had recourse to silver money, and especially to those types with which the Greeks were acquainted. Thus the prevalence of Athenian coins in the Orient is accounted for by these circumstances. The generals of the Persian and Egyptian armies made use of the Athenian coins which had long been in circulation in the country. They merely imprinted upon the coin of Attic origin a counter-mark to officially authorize the circulation, and when the original Athenian coins in the country were insufficient to pay the troops, they struck off others as nearly like them as possible—these, however, are easily recognized by the defects of workmanship and altered inscriptions. One sort has in place of the Greek lettering an Aramean inscription. On a certain number of these we find the name Mazaios, the famous satrap of Cilicia, who undertook to subdue the insurgent king of Sidon.

The imitation of Athenian coins and the coins of Alexander was continued in Arabia down to the first century of our era. The Athenian coins were not the only ones copied in Egypt, Palestine, and Arabia. The coinage of the kings of Sidon were frequently imitated by the Aramean chiefs, of whom Bagoas was one. Then, too, the kings of Sidon had supreme command of the imperial fleet and had the paying of the naval army. Later, Mazaios, placed at the head of the Persian army, for a time imitated the Sidonian coins, substituting his name for that of the Sidonian dynasty. Bagoas, in turn, did likewise.

3. In Phoenicia and northern Syria, which formed the greater part of the fifth satrapy, a great quantity of coins were struck off by the tributary dynasties. The kings of Tyre, Sidon, Gebal, and Aradus had their own coinage, but there seems to have been no satrapal coinage struck off in Phoenicia. In northern Syria, when Mazaios

added this satrapy to his own, he levied and assembled troops from that entire region; this accounts for the numerous issues of coins in northern Syria at that time.

4. The dynasties of Cilicia coined money under the same conditions as did the cities of Phenicia, Caria and Lydia. The chief mint of Cilicia was at Tarsus, but money was also coined at Soli and at Mallus. About the end of the fifth century a coinage was issued from these mints which is ascribed to uncertain satraps. The distinguishing mark of these coins, according to Mr. Waddington, is the use of the neuter adjective in *τεκον*, but this theory is not conclusive. Besides these anonymous coins there were others coined in Cilicia bearing the names of satraps, who were the envoys of the great king to raise armies and equip fleets. The satrap Tiribazus employed the mints at Issus, at Soli and Mallus; the satrap Pharnabazus established his mints in various cities in Cilicia, particularly at Nagidus; Datamus also issued coinage in Cilicia. M. Six holds that Mazaios coined money, not only in Cilicia, but also in Syria and Mesopotamia, and preserved the right to a coinage under Alexander, but always in a military capacity.

5. After the conquest of Alexander, his generals issued coinage under his name in their satrapal authority. These were the coins of Alexander, bearing on one side the particular symbol of the generals who had issued them; there were the eagle of Ptolemy, the demi-lion of Lysimachus or the horned horse of Seleucus. Those of the generals who became kings, in 306, issued coins in their own name, preserving on them the personal emblems which they had employed in their satrapal authority. The generals who did not become kings never issued a coinage in their own names.

6. On the island of Cyprus are found numerous coins which present all the distinctive signs of satrapal money; they are believed to have been struck by Evagoras II, the successor of Nicocles I; but the question arises, Were these satrapal pieces of Evagoras coined on the island? It has been held that they were issued from a mint on the continent, in Caria, because the army of Evagoras was recruited in Asia Minor, and because their weights are Rhodian, but the form of the letters is Phœnician, as upon all Cypriote coins; while, on the other hand, in Asia Minor the Semitic money is inscribed with Aramean characters. Moreover, all symbols and types which figure on these coins are essentially Cypriote.—E. BABELON in *Revue Numismatique*, 1892, p. 277.

SASSANIAN COINS.—The Museum of the Hermitage has just come into possession of the collection of coins of General Komarof, once

governor of Russian Turkistan. It consists of more than two thousand pieces, of which sixty are of gold. The most remarkable coins of this rich collection are: Four Sassanian pieces in gold, unpublished, (one of Hormuzd II and three of Sapor II), a dinar of Nasr I, a dinar of Kharmezi of Tamerlan, a dinar of Abdallah-ben-Khazim, and about fifty unpublished Sassanian silver coins.—*Revue Numismatique*, 1892, p. 348.

PERSEPOLIS.—CASTS OF SCULPTURES.—The English archaeologist Mr. Cecil Smith has lately returned from an expedition to Persia. He had with him two Italian makers of casts, and by their means has obtained a valuable series of casts of the sculptures of Persepolis from moulds of a fibrous Spanish paper. Among the casts are those of a long frieze (perron) which decorated the stairway of the main hall or "apadāna," erected by Xerxes; it represents a procession of figures presenting to the king the reports of his governors and the offerings of his subjects. Another cast is that of the famous monolith of Cyrus.—*Chron. des Arts*, 1892, No. 31. We understand that the collection of casts of the Metropolitan Museum is to receive a copy of all these casts.

SYRIA.

EDESSA.—HISTORICAL SKETCH.—M. Rubens Duval, the eminent Syriac scholar, has been publishing in the *Journal Asiatique* a history of the city of Edessa under the title: "*Histoire religieuse et littéraire d'Edesse jusqu'à la première Croisade*, (Jour. As. t. 18, No. 1 to t. 19, No. 1). This monograph has been crowned by the French Academy. It includes a considerable amount of information concerning the monuments of the city, especially those belonging to the early Christian period, and some idea can be gained of them by the following abridged note. As Edessa was one of the principal cities of the Christian East, the information is of interest. Edessa was from its position a fortress of the first rank and reputed impregnable. The citadel rose on a peak on the south-west angle of the rampart. At the west end there still remain two columns with Corinthian capitals, one of which bears an inscription with the name of Queen Shalmat, daughter of Ma'nu, probably the wife of King Abgar Ukhama. Within the citadel, on the great square called Beith-Tebhara, King Abgar VII built, after the inundation of 202, a winter palace, safe from the river floods, and the nobles followed his example. In the city itself were the porticoes or forum near the river, the Antiphoros or town-hall, restored by Justinian. In 497, the governor of the city, Alexander, built a covered gallery near the Grotto Gate and Public Baths, near the public store-

house; both the summer and winter baths were surrounded by a double colonnade. To the south, near the Great Gate, were other baths, and near them the theatre. Within the Beth Shemesh Gate was a hospital and outside it a refuge for old men. North of the city, near the wall, was the hippodrome, built by Abgarus IX on his return from Rome. The city had six gates which still exist under different names.

Edessa is one of the few cities that are known to have had a Christian church as early as the second century. This church was destroyed by the inundation of 201, was then rebuilt, being the only church in the city, suffered from the inundation of 303 and was rebuilt from its foundations in 313 by Coña, bishop of Edessa, and his successor Sa'd. It was called the Ancient Church, "the cathedral," also sometimes the Church of St. Thomas, because in 394 it received the relics of the apostle Thomas. The Frankish pilgrim woman who visited it at the close of the fourth century, or later, speaks of its size, beauty and the novelty of its arrangement. Duval believes her words to relate to Justinian's building, believing in a later date than is usually assigned to the above document. In 525 the church was overthrown by an inundation and then rebuilt by Justinian in such splendor as to be regarded as one of the wonders of the world. It was overthrown by earthquakes in 679 and 718.

The other churches were as follows:

- 370. The Baptistry is built.
- 379. Church of S. Daniel or S. Domitius, built by Bishop Vologese.
- 409. Church of S. Barlaha, built by Bishop Diogenes.
- 412. Church of S. Stephen, formerly a Jewish synagogue, built by Bishop Rabbula.
- 435. The New Church, called later the Church of the Holy Apostles, built by Bishop Hibbas.
 - " Church of S. John the Baptist and S. Addæus, built by Bishop Nonnus († 471), successor of Hibbas.
 - " Church of S. Mar Cona.
- 489. Church of the Virgin Mother of God, built on the site of the School of the Persians after its destruction in 489.
- c.505. Martyrium of the Virgin, built by Bishop Peter early in vi century.

Outside the walls were the following churches:

- Towards the N. Chapel of SS. Cosmas and Damian, built by Nonnus (middle v century).
- E. Church of SS. Sergius and Simeon, which was burned in 503 by the Persian King Kawad.

W. Church of Confessors, built in 346 by Bishop Abraham,
and burned by Kawad in 503.

Church of the Monks, near the citadel.

The cliffs to the west had been from early times excavated for burial purposes. In the midst of the tombs rose the mausoleums of the family of the Abgars, especially that of Abshelama, son of Abgarus. They were also honeycombed with anchorites' cells. This mountain received the name of the Holy Mountain and was covered with monasteries, among which were the following: Eastern Monks; S. Thomas; S. David; S. John; S. Barbara; S. Cyriacus; Phesilta; Mary *Deipara*; of the Towers; of Severus; of Sanin; of Kuba; of S. James. Arab writers mention over 300 monasteries around Edessa. Two aqueducts, starting from the villages of Tell-Zema and Maudad to the north, brought spring-water to the city; they were restored in 505 by Governor Eulogius.

Bishop Rabbulas (412-435) built a hospital for women from the stones of four pagan temples which were destroyed. He destroyed the church of the sect of Bardesanes and the church of the Arians, erecting other structures with their materials. After the Persian wars (505) Eulogius, governor of Edessa, rebuilt many of the damaged public monuments. He repaired the outer ramparts and the two aqueducts; rebuilt the public baths, the prætorium, and other structures. The bishop, Peter, restored the cathedral and built the Martyrium of the Virgin, and also covered with bronze one of the cathedral doors. Justinian restored and rebuilt many buildings after the inundation of 524-25. Even under the early period of Muhammadan rule the Christian structures were cared for. Under the Khalif Abd-el-Malik (685-705) the Edessene Christian Athanasius, who enjoyed great political influence, rebuilt the Church of the Virgin, which was on the site of the School of the Persians; rebuilt also the Baptistry in which he placed the portrait of Christ sent to Abgarus and placed in it fountains like those of the Ancient Church, decorating it also with gold, silver and bronze revetments. He also built two large basilicas at Fostat in Egypt. There is an interesting account of an artistic treasure of great value discovered in a house belonging to a noble family of the Goumœaus in 797 and belonging to the Roman and Byzantine period; it is supposed to have been hidden in 609. The churches were often destroyed and rebuilt according to the tolerance or intolerance of the Muhammadan governors. At one period of persecution, c. 825, a mosque was built in the *tetrapylum* in front of the Ancient Church. It is not important to trace the vicissitudes of the building of Edessa any further.

COINS OF THE KINGS OF EDESSA.—Marquis de Vogué sends to M. E. Babelon a description of a bronze coin brought from Syria, found either in the province of Alep or of Damas. It bears the name of Abgarus, the name of several of the kings of Edessa. The type is that of the small bronze pieces attributed to Mannou VIII; the character and inscriptions are the same. It must then be attributed to a king Abgarus whose reign approaches as nearly as possible that of Mannou VIII. Mr. Rubens Duval, in his history of Edessa, mentions two kings of this name, Abgarus VIII, whose reign cut into that of Mannou VIII, and Abgarus IX, who succeeded him. It is to one of these two princes that this coin must be assigned. It is possible that this monument may shed some light upon a portion of Oriental chronology, hitherto very dark. Two other coins are described from M. Vogué's collection, one of which, it seems, should be attributed to the same king Abgarus as the preceding; the other bears a name which M. Duval assigns to Abgarus XI, who reigned for two years during a short restoration of the government of Edessa.—*Revue Numismatique*, 1892, p. 209.

SINJIRLI.—**SEMITIC INSCRIPTIONS.**—The German Oriental Committee discovered, as is well known, an ancient city buried under a number of mounds at a place called Sinjirli in the Amanus Mountains. Here were found a number of statues bearing cuneiform inscriptions, Hittite inscriptions and two long Aramean inscriptions of the VIII or IX century B. C.

M. Helévy, the well-known French Orientalist, was sent by the Paris Institute to the Museum of Berlin, where these statues are placed, to report upon the inscriptions. M. Helévy finds that the two kings were rulers of Yadi and that their reigns were a century apart. The first statue is that of Panémon, founder of his dynasty—a 40 line inscription relates the events of his reign, the protection of the Jews, etc. The second is a king who was a vassal of Tiglath-Pilezer, king of Assyria. The inscription describes wars of his father, his own relations with Assyria, his defeats and victories. It gives an account of his own reign and terminates by invoking the protection of the gods.

M. Helévy says that these inscriptions are not in the Aramean language, as was first supposed, but a Phoenician dialect very analogous to Hebrew, which was spoken by the people whom the Assyrians named Hatte, that is to say, Hittites or Hethim. He adds that the current opinion as to their not being of Semitic race is quite erroneous and that the hieroglyphics discovered in various parts of Asia Minor are of Anatolian and not of Assyrian origin, the few texts of this kind found at Hamath and Aleppo being due to Anatolian conquerors,

whose domination, however, was very temporary in character.—*Journal of the Royal Asiatic Society*, 1892, Oct., p. 887.

NAMES OF CITIES AT MEDINET HABŪ.—Prof. Sayce writes: The list of places conquered by Rameses III in Palestine and Syria, which I copied on the pylon of Medinet Habū, turns out to be even more interesting than I had supposed, as a whole row of them belongs to the territory of Judah. Thus we have the "land of Salem," which, like the Salam of Rameses II, is shown by the Tel-el-Amarna tablets to be Jerusalem, *arez haulast*, or "New Lands," the Hadashah of Joshua (xv. 37), Shimshana or Samson, "the city of the Sun" (Josh. xv. 10), Carmel of Judah, Migdol (Josh. xv. 37), Apaka or Aphekah (Josh. xv. 53), "the Springs of Khibur" or Hebron, Shabuduna, located near Gath, by Thothmes III, and Beth-Anath, the Beth-Anoth of Joshua (xv. 59). The discovery of these names in the records of an Egyptian king, who reigned about 1200 b. c., raises a question of some interest for students of the Old Testament.—*Academy*, April 2.

JAFFA.—The Committee of the Palestine Exploration Fund have received through Mr. Bliss a squeeze of a long inscription stated to have been recently discovered at a place not far from Jaffa, which appears to contain about 250 letters in the Phœnician character.—*Academy*, March 5.

JERUSALEM.—**A BYZANTINE BRACELET.**—Mr. Maxwell Somerville of Philadelphia has added to his collection a large bronze bracelet found near Jerusalem and bearing a Greek inscription. It was communicated to the *Acad. des Inscr.* by M. le Blant. At one end of the inscription is a lion *courant*, at the other a serpent *rampant*. On the left end is soldered a small round plaque on which is engraved a subject identical with that found on some of the amulets published by M. Schlumberger in the *Rev. des Études Grecques* (see under *Byzantine Amulets* in Greek news of this number). A mounted warrior—whom Mr. Schlumberger identifies as Solomon—pierces with his lance a prostrate female figure who apparently represents the devil, a "Fra Diavalo."—*Chron. des Arts*, 1892, No. 23.

RETHPANA—DEAD SEA.—Prof. Sayce has discovered at Medinet Habū the Egyptian name of the Dead Sea. Between the names of Salem and Yerdano and the Jordan comes "the lake of Rethpana." As the Dead Sea is the only "lake" in that part of the world, the identification of the name is certain. Rethpana could correspond with a Canaanite Reshpōn, a derivative from Reshpu, the sun-god, who revealed himself in flames of fire.—*Academy*, May 14.

TEL-EL-HESY—LACHISH.—CUNEIFORM TABLET.—We quote from a letter written to the times by Mr. James Glaisher, chairman of the executive committee of the Palestine Exploration Fund :—

“The excavations commenced two years ago by Dr. Flinders Petrie at a mound in Palestine named Tell-el-Hesy have been continued during the last six months by Mr. F. J. Bliss, of Beirut. The Tell has been identified by Major Conder and Dr. Flinders Petrie with the ancient city of Lachish, an identification which is now amply confirmed.

“Mr. Bliss has found among the *débris* a cuneiform tablet, together with certain Babylonian cylinders and imitations or forgeries of those manufactured in Egypt. A translation of the tablet has been made by Prof. Sayce; it is as follows :—

‘To the Governor. [I] O, my father, prostrate myself at thy feet. Verily thou knowest that Baya (?) and Zimrida have received thy orders (?) and Dan-Hadad says to Zimrida, “O, my father, the city of Yarami sends to me, it has given me 3 *masar* and 3... and 3 falchions.” Let the country of the King know that I stay, and it has acted against me, but till my death I remain. As for thy commands (?) which I have received, I cease hostilities, and have despatched Bel(?)-banilu, and Rabi-ilu-yi has sent his brother to this country to [strengthen me (?)].’

“The letter was written about the year 1400 b.c. It is in the same handwriting as those in the Tell-el-Amarna collection, which were sent to Egypt from the south of Palestine about the same time.

“Now, here is a very remarkable coincidence. In the Tell-el-Amarna collection we learn that one Zimrida was governor of Lachish, where he was murdered by some of his own people, and the very first cuneiform tablet discovered at Tell-el-Hesy is a letter written to this Zimrida.

“The city Yarami may be the Jarmuth of the Old Testament.

“‘Even more interesting,’ writes Prof. Sayce, ‘are the Babylonian cylinders and their imitations. They testify to the long and deep influence and authority of Babylon in Western Asia, and throw light on the prehistoric art of Phœnicia and Cyprus. The cylinders of native Babylonian manufacture belong to the period b.c. 2000–1500; the rest are copies made in the West. One of these is of Egyptian porcelain, and must have been manufactured in Egypt, in spite of its close imitation of a Babylonian original. Others are identical with the cylinders found in the prehistoric tombs of Cyprus and Syria, and so fix the date of the latter. On one of them are two centaurs arranged heraldically, the human faces being shaped like those of birds. European

archæologists will be interested in learning that among the minor objects are two amber beads."—*Academy*, July 9.

The *Quarterly Statement* of the Palestine Exploration Fund for April contains a detailed report of Mr. F. J. Bliss's excavations at Tell-el-Hesy, the site of Lachish, during last winter, illustrated with several plans and woodcuts. The most interesting objects found were a number of bronze weapons, and fragments of pottery with markings, both from the lowest or Amorite town. Mr. W. M. Flinders Petrie adds a note on the weights discovered, almost all of which belong to the Phœnician and Aeginetan systems.

ARMENIA.

SEALS OF KING LEO II AND LEO V.—At a meeting of the *Acad. des Inscr.* M. Schlumberger communicated three magnificent bulls or gold seals of Leo II, king of Lesser Armenia. These gold bulls, appended to letters from this king to Pope Innocent III, written early in the XIII century, are preserved in the Vatican archives, and are probably the only examples of the king in existence. Leo II, in royal costume, is on one side; the lion of Armenia on the other. Another royal Armenian seal is preserved in the Bibliothèque Nationale. It is that of Leo V, the last king of the dynasty, who died, an exile, in Paris.—*Chron. des Arts*, 1892, No. 6.

CAUCASUS.

THE IRON AGE.—M. Ernest Chautre has given a statement of his ideas on the iron age in the Caucasus and elsewhere in a pamphlet entitled, *Origine et Ancienneté du premier âge du fer au Caucase*, Lyon, 1892. He says: "Necropoli of unequalled richness have been discovered in the Great Caucasus and on several points of Transcaucasia. These necropoli, in which inhumation appears to have been almost exclusively used, should be divided into two large groups. The most ancient corresponds to the Hallstatt period; the later to the Scythian period in the East and the Gallic period in the West. The Hallstatt type or that of the first iron age is met with especially in the most ancient tombs of the necropolis of Kobau, in Ossethia; those of the second iron age are to be found essentially in the necropolis of Kambylte in Digouria and certain localities of Armenia. The first iron age was introduced into the region of the Caucasus between the xx and xv century B. C. by a dolichocephalic population of Mongolo-Semitic or Semito-Kushite and not of Iranian origin. It was transformed toward the vii century by the invasion of a brachycephalic Scythian people of Ural-Altaïc origin.

ANI.—The Russians are excavating at Ani, in Turkish Armenia, the ancient capital. They have found some ecclesiastical and other antiquities.—*Athenaeum*, Sept. 3.

ASIA MINOR.

PRIVATE GREEK COINAGE BY REFUGEES.—The Persian kings accorded to certain illustrious Greeks who had sought refuge in Asia Minor on Persian territory the right to coin money. To this they joined the privileges inherent in the title of hereditary despot which was granted to them. The principal coinages are those of Themistokles at Magnesia, of Georgion at Gambrium, and of Euriphenes at Pergamon. M. Babalon read a memoir on the subject before the *Soc. des Antiquaires*, giving genealogical details regarding those families of exiles.—*Chron. des Arts*, 1892, No. 16.

COMPARISON OF HITTITE AND MYCENÆAN SCULPTURES.—M. Heuzey has read before the *Acad. des Inscr.* (Oct. 14) a comparative study on an engraved gold ring found at Mycenæ and a relief in the Louvre which belongs to the series of Hittite reliefs and was found at Khar-pout, in the Upper Euphrates region on the frontier of Armenia and Cappadocia. The relief is surmounted by two lines of ideographic inscription. The subject on both is a stag-hunt; the stag is hunted in a chariot, as was always done before the horse was used for riding, that is before the VIII century B.C. The relief is a rustic variant of the Assyrian style; certain details prove it to belong to the IX century. The stag is of the variety called *hamour* by the Arabs, characterized by horns palm-shaped at their extremities. On the ring the attitudes are far more lively and bold, but the identity of the subject is none the less striking.—*Revue Critique*, 1892, No. 43.

HITTITE INSCRIPTION.—M. Menant has communicated to the *Acad. des Inscr.* (Aug. 7, 1891,) a new Hittite inscription, noted during the preceding summer, in the pass of Bulgar-Maden, in Asia Minor. It is in perfect preservation and of unusual length, and is therefore of great value for the study of the Hittite language. M. Menant sees at the beginning the genealogy and titles of a prince, some other of whose inscriptions have already been found; then an invocation to the patron divinities of his kingdom; then the main body of the inscription, which will doubtless be the most difficult to decipher; and at the close a re-enumeration of the divinities already invoked.—*Revue Critique*, 1891, No. 35-6.

THE DECIPHERMENT OF THE HITTITE INSCRIPTIONS.—Prof. Sayce writes: "I have, I believe, at last succeeded in breaking through the

blank wall of the Hittite decipherment. Twelve years ago, with the help of the bilingual text of Tarkondēmos, I advanced a little way, but want of material prevented me from going further. At length, however, the want has been supplied, and new materials have come to hand, chiefly through the discoveries of Messrs. Ramsay, Hogarth, and Headlam in Asia Minor. The conclusions to be derived from the latter are stated in an article of mine which has just been published in the last number of the *Recueil de Travaux relatifs à la Philologie et à l'Archéologie égyptiennes et assyriennes*. Since that article was written, I have once more gone through the Hittite texts in the light of our newly-acquired facts, and have, I believe, succeeded in making out the larger part of them.

As in the languages of Van, of Mitanni, and of Arzana, the Hittite noun possessed a nominative in -s, an accusative in -n, and an oblique case which terminated in a vowel, while the adjective followed the substantive, the same suffixes being attached to it as to the substantive with which it agreed. The character which I first conjectured to have the value of *se*, and afterwards of *me*, really has the value of *ne*.

The inscriptions of Hamath, like the first and third inscriptions of Jerablūs, are records of buildings, the second inscription of Jerablūs is little more than a list of royal or rather high-priestly titles, in which the king "of Eri and Khata" is called "the beloved of the god (Sutekh), the mighty, who is under the protection of the god Sarus, the regent of the earth, and the divine Nine; to whom the god (Sutekh) has given the people of Hittites . . . the powerful (prince), the prophet of the Nine great gods, beloved of the Nine and of . . . , son of the god." The first inscription of Jerablūs states that "the high priest and his god have erected "images" to Sarus-* -erwes and his son." Who the latter were is not mentioned, nor is the name of the son given. Those who have read what I have written formerly on the Hittite inscriptions will notice that I was wrong in supposing that Sarus-* -erwes and his father were the father and grandfather of the Carchemish king to whom the monument belongs.—*Academy*, May 21, 1892.

One of the most curious facts that result from my decipherment of the texts—supposing it to be correct—is the close similarity that exists between the titles assumed by the Hittite princes and those of the Egyptian Pharaohs of the xviii and xix dynasties. The fact has an important bearing on which the monuments of Hamath and Carchemish must be assigned. The similarity extends beyond the titles, the Hittite system of writing presenting in many respects a startling parallelism to that of the Egyptian hieroglyphs. Thus, "word" or "order" is denoted by a head, a phonetic character, and the ideograph

of "speaking," the whole being a fairly exact counterpart of the Egyptian *tēp-ro*, an "oral communication." It would seem as if the inventor of the Hittite hieroglyphs had seen those of Egypt, just as Doalu, the inventor of the Sei syllabary, is known to have seen European writing. This likeness between the graphic systems of the Hittites and Egyptians has been a surprise to me, since I had hitherto believed that, as the Hittite hieroglyphs are so purely native in origin, the graphic system to which they belong must also be purely native.—*Academy*, May 21.

ARAMEAN COINS OF CAPPADOCIA.—M. Six, enumerating all the coins bearing the names of Datames, mentions only those of the ordinary type of Sinope, with a Greek inscription. M. Babelon finds coins of Datames in Cilicia as well, and reads this name in the Aramean inscriptions which M. Six interprets *Tarcamos*. The name of Datames is historic, but the reading of M. Six has not come down to us. The coins in question bear a striking likeness to those of Pharnabazus, their types being identical. We know that Datames succeeded Pharnabazus in the command of the Persian armies, their coins then must have been struck under the same circumstances and in the same mints, that is, in the ports of Cilicia where preparations were made for the expedition against Egypt. Later, Datames was charged with subduing the rebellious Sinope, here we have an explanation of the coins of Sinopean type bearing the name of Datames. Why may not this man be the same whom Diodorus designates satrap of Cappadocia?

2. There are two similar drachmas, one in possession of the Cabinet des Médailles, the other in the Waddington collection; they are Cappadocian coins of the type of Sinope, like those of Datames. The Aramean inscription on the back of these coins has been given a variety of interpretations which appear to be equally possible. M. Babelon, after careful study, fixes upon *Abrocomou*, the only reading in which we can recognize an historic personage. Abrocomas was one of the principal lieutenants of Artaxerxes II and was a colleague of Pharnabazus in the Egyptian campaign. If we accept this reading of the drachma's inscription we must infer that Abrocomas became satrap of Cappadocia, he was in all probability successor to Datames, his coins plainly of later date; their weight and their style show that they belong to the older coinage of Sinope and they are no less certainly anterior to those of Arianthes, which they somewhat resemble.

3. Arianthes must have been the immediate successor of Abrocomas, the identity of style, of types and of material in these coins point to this conclusion. M. Six places two governors of Cappadocia between Datames and Arianthes, whose names he finds on certain coins. M.

Babelon shows that the drachma which bears one of these names, is a manifest imitation of the drachmas of Datames; he also points out that the inscription itself is plainly an alteration of the Aramean name of Datames. The other name he proves to be a deformation of *Abro-comas* and states his belief that neither of these supposed governors of Cappadocia ever existed and cites other instances of the imitation of coins and the alteration of inscriptions.—*Revue Numismatique*, III S. tom. 10. II trim., 1892, p. 168.

HITTITE LETTER OF DUSRATTA.—Among the 300 letters from Tell-el-Amarna is one written to Amenophis III by Dusratta, king of Mitani, the region immediately east of the Euphrates. The letter which was written on both sides of a clay tablet in cuneiform characters begins with an introduction of seven lines in Assyrian, but the remaining 605 lines are in the native language of Dusratta.

The content refers to an embassy sent from Egypt to ask for the hand of his daughter and to recognition of his conquests in Phœnicia. The most important parts are those relating to his religion and to the affairs of state. We find that the religion of the Hittites, Armenians and Akkadians was probably the same as well as their language, which was more nearly akin to pure Turkish than to any other branch of Mongol speech. Dusratta was a Minyan and his power seems to have been the chief in Armenia at this time.

From the letter we find that Dusratta was to receive a large portion of Phœnicia and Northern Syria, which he was to rule as a tributary of Amenophis III.

The latter part of the letter refers to the marriage of Yadukhepa, daughter of Dusratta, to the heir of Egypt, with assurances of increased renewal of friendship between the kingdoms.

The letter is especially important because we may obtain from it, in connection with the letter of Laskondam, also written in Hittite, many of the forms of the Hittite language, its grammar and vocabulary of 400 words.

By these it is shown to be clearly a Mongol language, closely related with the Akkadian, though somewhat later.—*Biblia*, Sept., 1892.

ANGORA.—At a meeting of the *Acad. des Inscr.* M. J. Menant exhibited the rubbing of a Hittite bas-relief found at Angora, which is now at Constantinople. It shows two personages, with an inscription in Hittite characters by the side of each. One of them is the god Sandu, to whom a king (with a name not yet deciphered) is making an offering.

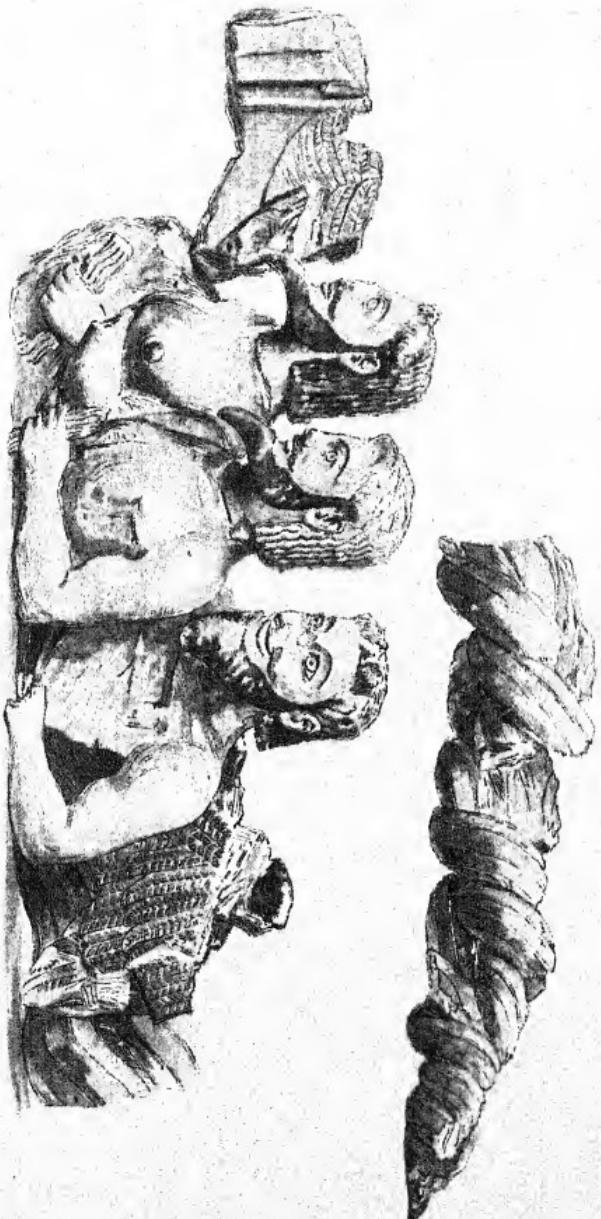
APAMEIA.—CHRISTIAN CHURCH.—Mr. G. Weber has published a study of the early Christian church of Apameia (*Une église antique à Dainair*) which he considers to be the earliest of which any remains exist in Asia; he regards it as having been built under Constantine.—*Revue Arch.*, 1892, 1, p. 181.

KARIA.—TEMPLE NEAR STRATONIKEIA.—A large temple of Hecate was found last year in Caria, near the ancient Stratonikeia (Eski Hissar). Hamdi Bey, the director of the museum at Constantinople, has been carrying on excavations. He has secured about 160 ft. of the sculptured frieze complete, and has repaired the road to the coast ready for its shipment. A member of the *École Française* has been invited by him to assist him, and the results will be published by the School.—*Athenæum*, Oct. 1.

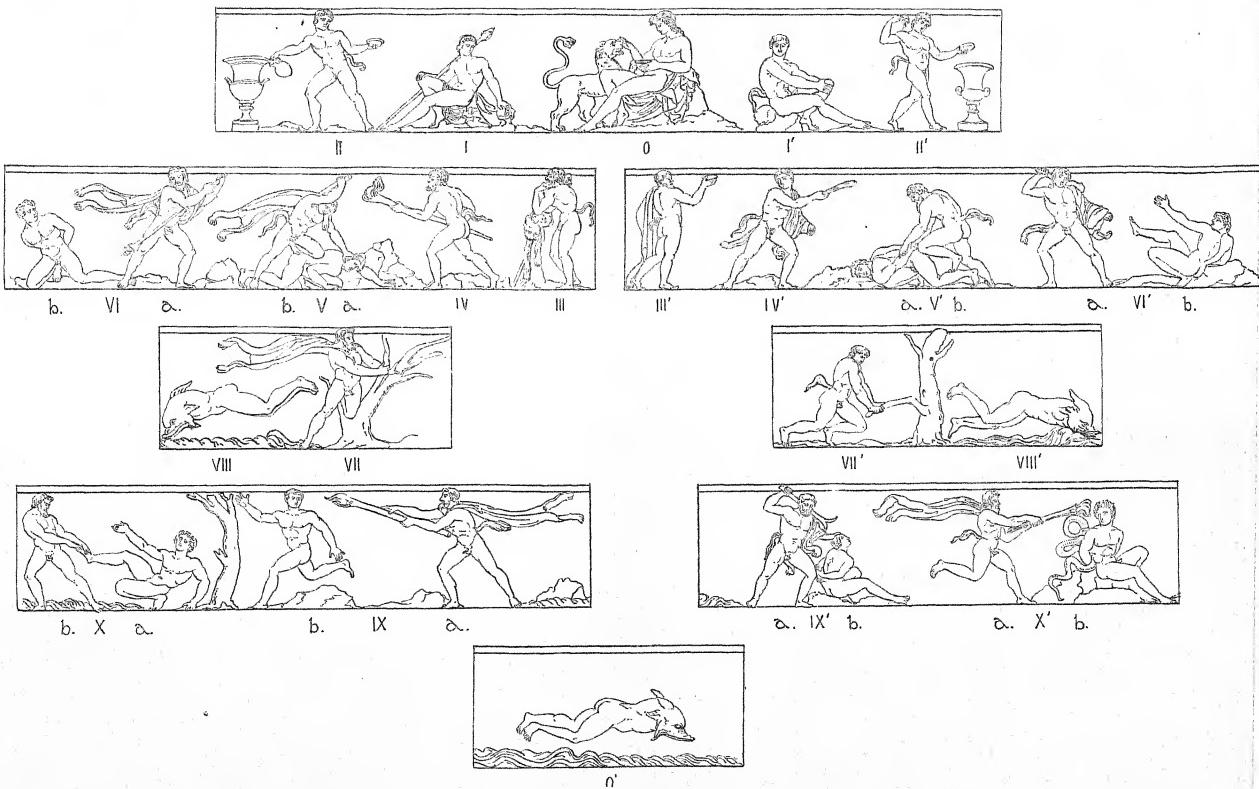
SEBASTOPOLIS.—M. Leon, the French vice-consul at Siwas, has communicated to the *Acad. des Inscr.* the discovery of a series of Greek inscriptions copied by him, which have enabled him to fix with certainty the site of the ancient city of Sebastopolis. They also furnish important information regarding its constitution.—*Athenæum*, Feb. 27.

A. L. FROTHINGHAM, JR.

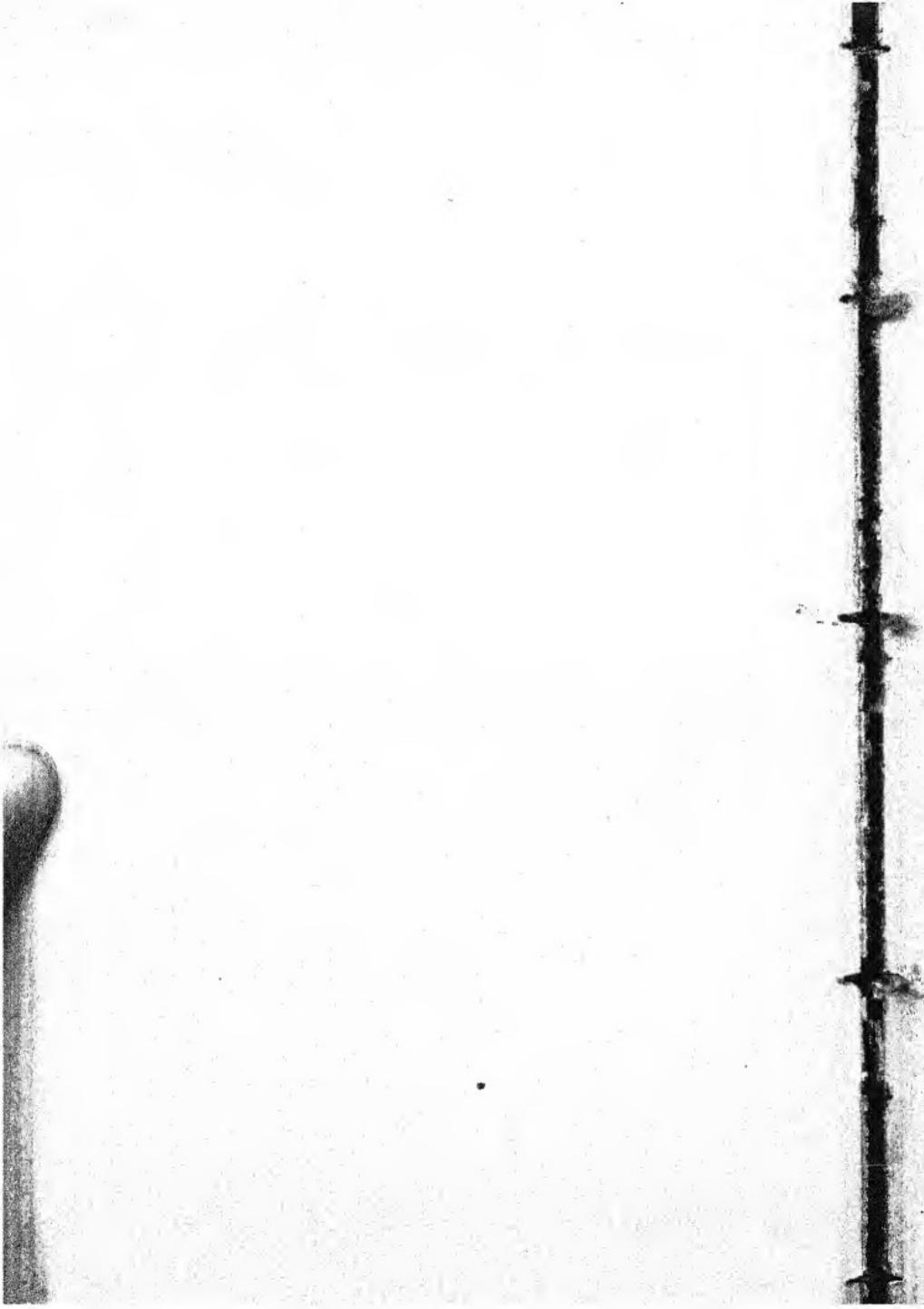




THE TYPHON PEDIMENT OF THE ACROPOLIS.



THE FRIEZE OF THE CHORAGIC MONUMENT OF LYSIKRATES.



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SOME UNPUBLISHED MONUMENTS BY LUCA DELLA ROBBIA.

[PLATES IV, V, VI, VII, VIII.]

I. THE TERRACOTTA MEDALLIONS OF OR SAN MICHELE.—Fourteen medallions decorate the exterior of Or San Michele in Florence. They exhibit coats of arms of the various guilds,¹ whose patron saints stand in architectural niches below. Five of these medallions are in glazed terracotta, the remainder are fresco paintings. From their elevated position they do not always attract attention and only two² have heretofore been photographed. Two of the remaining three are important works by Luca della Robbia, being mentioned with praise by Vasari,³ one of which

¹ Beginning with the central medallion on the Via Calzaioli and passing to the right and around the building these medallions represent the following corporations: (1) The Università or General Council of all the guilds. (2) The Judges and Notaries. (3) The Butchers. (4) The Shoemakers. (5) The Master workmen in stone and wood. (6) The Armorers. (7) The Bankers. (8) The Wool merchants. (9) The Iron workers. (10) The Clothiers. (11) The Furriers. (12) The Physicians and Druggists. (13) The Silk merchants. (14) The Dry Goods merchants. There were twenty-one of these guilds represented in the Government of the Republic at the time of the construction of Or San Michele. See FRANCESCHINI, *L'Oratorio di San Michele in Orto in Firenze*; Florence, 1892, pp. 22-24.

² These two are the medallion of the Physicians and Druggists, Brogi, photo. No. 4657, and that of the Silk merchants, Brogi, photo. No. 4658.

³ VASARI, edit. Milanesi, Vol. II, p. 175.

is now fully authenticated by documentary evidence, which the *American Journal of Archaeology* is the first to publish.

1. The Medallion of the Council of Merchants (*Università dei Mercanti* or *Tribunale di Mercanzia*), (Pl. iv, fig. 1).

The guilds, which as separate corporations adorned Or San Michele with statues and medallions, were united in a central representative body, the *Università dei Mercanti* or *Tribunale di Mercanzia*, which passed upon matters of common interest and settled disputes. This body, which constituted a *Magistratura delle Arti*,⁴ is represented in statuary by Verrocchio's group of Christ settling the doubts of S. Thomas, and also by the central medallion, which faces the Oratory of San Carlo on the Via Calzaioli.

The medallion, in glazed terracotta relief, exhibits the fleur-de-lis resting upon a corded bale of cotton. With this modification the arms of Florence became the symbol of the Council of Merchants. The fleur-de-lis is here colored beneath the glaze a beautiful violet against a white shield. This rests on a concave fluted ground of rich dark blue, and is surrounded by a polychrome wreath of fruit and flowers. Cav. Jodoco Del Badia, the *Archivistia di Stato*, has recently discovered the following important document, which through his kindness we are permitted to publish. It is found in the records of the *Università* entitled *Libro di Deliberazioni, Stangimenti dei Sei Consiglieri della Mercanzia*, p. 254, under the date Sept. 28, 1463, and reads as follows:

"Luce Marci della Robia intagliatori F. 25 a sold. 88 et den. 5 per fiorino pro parte solutionis et mercedis operis per eum facte de signo et arma et circa signum et arma dicte Universitatis per eum applicandum in circulo posito in facie Oratorii S. Anne⁵ site in Platea Ortii S. Michaelis civitatis Florentie supra pilastrum dicte Universitatis positum in dicta facie contra Oratorium S. Michaelis⁶ in orto secundum ordinationem et commissionem operariorum ordinatorum et deputatorum de mense Januarii seu Februarii 1462 (modern reckoning 1463) per tunc officium sex Consiliariorum dicte Universitatis pro ornando et decorando dicto pilastro. £ 110 sol. 10 d. 5 piccioli."

⁴ FRANCESCHINI, *op. cit.*, p. 89.

⁵ Now known as Or San Michele.

⁶ Now known as the Oratorio di San Carlo.

This we translate: “(Paid) to the sculptor Luca, son of Marco della Robbia, twenty-five florins at eighty-eight soldi and five deniers per florin, in part payment and recompense for the work done by him on and about the arms of the aforesaid University, (the medallion) to be set by him in a circular space situated in the front of the oratory of St. Anne, situated in the square of Or San Michele in the city of Florence, upon the pilaster of said University situated on the said front opposite the oratory of Or San Michele, according to the ordinance and commission of the *operarii* appointed and commissioned January and February, 1463, in virtue of the act then passed by the six councillors then governing the said University for the ornamentation and decoration of said pilaster. £ 110, soldi 10, denarii 5 (piccioli).”

This medallion has heretofore been ascribed to Luca della Robbia chiefly upon the authority of Vasari,⁷ but the discovery of this document puts its authenticity beyond doubt. As its date has now been recovered, it now assumes the position of the *latest dated terracotta work of Luca della Robbia*. When we examine the medallion in detail we find a directness and simplicity of design coupled with a very high degree of plastic skill. The hand of the artist is visible everywhere. Scant justice has been done to the color sense of Luca della Robbia, although in this respect he far surpassed his successors. The violets, the blues and the varying shades of green used by Luca belong to a color scale of great refinement and produce harmonious effects of a high order. Apart from their harmonies, the shades of color are beautiful in themselves and evince careful selection. In the wreath of fruit and flowers, the plums and grapes and poppies, the oranges, figs, pears, olives, quinces, beans, chestnuts and artichokes, the *succhi* and pine-cones and the wild roses contribute as much by their varying color as by their form to the charming character of the encircling frame. The composition of the frame consists of a series of bouquets, which follow each other closely enough to form a continuous wreath. In later products of the school these bouquets are sometimes widely separated, though generally too closely massed together. The plastic character of this wreath

⁷ VASARI, edit. Milanesi, vol. II, p. 175.

proves the artist's fine observation of nature and his skill in rendering visible the varied forms of fruit and foliage. In comparison with this, the wreaths of Giovanni della Robbia are monotonous in design and indistinct both in form and color. They are like blurred images of better work. The same varied treatment is seen in Luca's mouldings. He does not use the same mouldings indiscriminately in different situations. Here the unimportant leaf moulding within the wreath is treated with the utmost simplicity, whereas the arrises of the concha are rendered more ornate as well as more emphatic by means of a deeply incised line. Such delicate discrimination does not characterize the work of other members of this school.

2. The Medallion of the Master workers in Stone and Wood.⁸ (*Maestri di Pietra e Legname*), (Pl. IV, fig. 2).

This medallion of harmonious coloring and exquisite design may be attributed without hesitation to Luca della Robbia. It is an enameled painting, not a relief; nevertheless we recognize in it the same scale of colors, the same degree of artistic skill which we find in the preceding relief. It even betrays the plastic nature of its author, not merely by the clear forms which it exhibits, but some of the finest ornamentation is constructed in most delicate relief, which is invisible except when seen in bright sunlight and with the aid of strong glasses. This work is, strictly speaking, a mosaic composed of a large number of small pieces separately executed and carefully put together. We see a suggestion of the design in the predella of the marble tabernacle by Luca in the church of S. Maria at Peretola⁹ and the same technique in the beautiful frame in which he enclosed the tomb of Bishop Benozzo Federighi¹⁰ in the church of S. Francesco di Paola at Bellosguardo. But in these examples the terracotta mosaic is subsidiary to the sculptured marble monuments. Here it is used independ-

⁸ This guild consisted of architects, sculptors, masons, potters, dealers in sand, whitewashers, and cabinet makers; their protectors were Saints Castor, Sinfurian, Nicostratus and Simplicius; arms, a silver shield on red ground. FRANCESCHINI, *op. cit.* p. 23.

⁹ Brogi, photo. No. 5841.

¹⁰ Alinari, photo. No. 8396.

ently, and may be regarded as Luca's highest achievement in this class of work.¹¹

The photographic illustration, which we publish for the first time, does not bring to view the more delicate portions of the design. In the four small circles where are found the compasses, the square, the trowel and the hammer and chisels, the backgrounds contain beautiful floral designs of light green against a slightly darker ground. The illustration also leaves to our imagination the coloring, which is most harmonious. In the centre we see a large ax with a broad white blade, having a delicate blue ornament and yellow handle; surrounding it is a graceful floral pattern of light violet against a darker violet ground. The *guilloche* or braid which forms the five circular spaces is composed of three shades of blue; these colors are repeated in the large flowers of the outer circle. These flowers, which spring from green plants tinged with yellow, are sharply drawn and are arranged in alternate pairs of slightly different design. The eyes of the *guilloche* and the ground for the flowers in the outer band is of a yellowish brown, not far from the color of the sandstone of the building. There is no harsh note in the coloring. The symbols of the guild stand out boldly, leaving no doubt in the spectator's mind as to the purpose of the medallion. It is a panegyric to sculptors and woodcarvers, addressed to the eyes of posterity through the medium of soft colors and exquisite design.

3. The Medallion of the Physicians and Druggists¹² (*Medici e Speziali*) (Pl. v, fig. 1).

The highly polychromatic character of this monument is suggestive of the later products of the Robbia school. But the more we examine the work as a whole the more numerous become the arguments for ascribing it to the elder Luca. Besides the dignity of treatment of both Virgin and child, and the rigid architectural

¹¹ VASARI, vol. II, p. 175, speaks of this medallion as an experiment, but to us it represents a later than the experimental stage.

¹² Besides physicians this guild included painters, workers in wax, perfumers, varnishers, dealers in crockery, hats, stationery, glass, needles and thread, ropes, books, also the barbers. The Virgin was their protector; arms, the Virgin in a tabernacle, painted in customary colors, on a blue shield with lilies on each side of the tabernacle. Dante belonged to this guild. FRANCESCHINI, *op. cit.*, p. 22.

symmetry which link it in spirit with the works of Luca, we may point out some peculiarities which belong to him alone. If we study the Madonnas of Luca apart from those of Andrea and Giovanni della Robbia we shall find that Luca ordinarily places the child to the right of the Virgin, whereas both Andrea and Giovanni with equal regularity place the child to the left. The exceptions to this rule are surprisingly few. Again, the drapery of the Virgin is clearly related to the drapery of the Virgin on the Sacristy doors of the Cathedral at Florence;¹³ the throne is the same simple bench which appears in all the panels of those doors;¹⁴ the treatment of the hair is similar to that of the Virtues in the Portogallo chapel at S. Miniato;¹⁵ and the design of the background recalls the border of the curtain figured upon the Tabernacle at Peretola. If we examine Luca's medallions upon the campanile of the Cathedral of Florence¹⁶ we shall find at least one peculiarity which distinguishes them from all the rest. He had considered that the medallions were to be placed above the level of the eye of the spectator, and consequently made the bases upon which the figures are placed slope down toward the spectator. We see the same peculiarity in his Resurrection relief,¹⁷ in his Liberation and Crucifixion of S. Peter,¹⁸ and we see it here. When we examine more carefully the character of the coloring, we find here also reasons for attributing the monument to Luca. There is a quality in the light green lining of the cloak and in its harmony with the blue, also in the greenish-blue of the throne, which evinces the same refined color sense that we see exhibited in the treatment of the medallions already described. We may also observe that the manner in which the eyes are colored is characteristic of Luca. He indicates the hairs of the eyebrows and lashes by distinct strokes in blue, and distinguishes a dark pupil from the lighter iris somewhat roughly, not with the painstaking exactness of the miniature painter.

¹³ Brugj, photo. No. 4922.

¹⁴ Alinari, photo. No. 1980.

¹⁵ Alinari, photo. Nos. 3378-3381.

¹⁶ Alinari, photo. Nos. 2019-2023.

¹⁷ Alinari, photo. No. 1974.

¹⁸ Alinari, photo. Nos. 2707, 2708.

This medallion, as a polychrome figured relief in glazed terracotta, occupies an exceptional position amongst the works of Luca della Robbia, unless we ascribe to him also the medallions of the Four Evangelists in the Pazzi chapel;¹⁹ but the color scale and method of coloring are distinctly Luca's, and very different from that of subsequent members of the school.

While we may with Vasari attribute this work to Luca, it is more difficult to assign to it a date. It would appear to be a later production than the Madonna upon the sacristy door, which was designed in 1446; later also than the Madonna upon the tympanum of the church of S. Domenico at Urbino,²⁰ which dates from 1449 to 1452. It is a milder type than these and more closely related to a Madonna and child in a garden,²¹ now in the Museo Nazionale in Florence, and even more closely to a Madonna and child in the Palazzo Frescobaldi. We may accordingly assume that it does not differ much in date from the Medallion of the Council of Merchants, and was produced about the year 1463.

4. The Medallion of the Silk Merchants²² (*Arte della Seta*), (Pl. v, fig. 2).

This medallion is not mentioned by Vasari. Its fruit frame is inferior to that of the Medallion of the Council of Merchants, and the genii who support the coat of arms call to mind the infants of the *Ospedale dei Innocenti*, the representations of the infant Christ and the cherubs, which we find so abundantly in the works of Andrea della Robbia. It is not surprising therefore that Andrea della Robbia should be considered its author.²³ Having, with the permission of the government, examined the monument at close quarters, I am inclined to believe that there are stronger reasons for attributing it to Luca della Robbia. In general treat-

¹⁹ Alinari, photo. No. 2186-2189.

²⁰ Alinari, photo. No. 15364.

²¹ Alinari, photo. No. 2766.

²² To this guild belonged silk merchants, silk dyers, goldsmiths, silversmiths, makers of banners, beaters of gold, makers of embroideries and velvets; their protector was S. John the Evangelist; coat of arms a white door with red frame on a silver background. FRANCESCHINI, *op. cit.*, p. 22.

²³ CAVALUCCI-MOLINIER, *Les Della Robbia*, cat. No. 40. BARBET DE JOUY, *Les Della Robbia*, p. 67.

ment there is a more marked resemblance between these genii and the genii of music on the choir gallery in the Opera del Duomo,²⁴ extending even to the decoration of the hair. The wings also are treated more broadly and with less detail than Andrea was accustomed to give to the wings of his figures, and the eyes are the blue eyes of Luca, with the blue iris²⁵ and darker blue pupil, though with characteristic love of variety he has here omitted marking the eyebrows and lower lashes. The violet color of the door frame may be paralleled on the other medallions of Or San Michele more easily than in the works of Andrea. Even when we consider the frame we see Luca della Robbia in other instances enshrining his works in frames even less elaborate and less skilfully executed than this.²⁶ If these reasons be not sufficiently strong to change the attribution, they at least limit the period of Andrea's authorship to his early days when most strongly under Luca's influence.

5. The Medallion of the Butchers (*Beccai Macellari*)²⁷ (Pl. v, fig. 8).

This medallion might easily be mistaken for a work of the della Robbia school, but it was made at the Ginori porcelain works at Doccia, and put in place in 1860. It was modelled by Leone Innocenti under the direction of Prof. Aristodemo Costoli.²⁸ Two other medallions, for the guild of the Judges and Notaries and for the Merchants, were also made by the Ginori establishment, but have never been put in place.²⁹ If we examine closely the Medallion of the Butchers, we find it inferior to those of Luca

²⁴ Alinari, photos. No. 2545-2553.

²⁵ There is considerable variety in Luca's method of coloring the eyes; much greater uniformity in Andrea's. Many of Luca's figures have eyes with blue irises, but, so far as I have observed, Andrea's irises are of a hazel color.

²⁶ See the lunette in the Via dell' Agnolo, Alinari, No. 2511, that from S. Pierino in Mercato Vecchio, now in the Museo Nazionale, Alinari, No. 2773; and a medallion in the Museo Nazionale, Alinari, No. 2767.

²⁷ To this guild belonged the butchers and sellers of fowl and of fish; their protector was S. Peter; their coat of arms a black goat on a golden shield. FRANCESCHINI, *op. cit.*, p. 23.

²⁸ FRANCESCHINI, *op. cit.*, p. 108, note 1.

²⁹ These may be seen at Doccia.

della Robbia. The glaze has cracked much more, the colors are handled with stronger contrasts, and the modelling exhibits less care and inferior skill.

II. MONUMENTS AT IMPRUNETA.—Only ten kilometres to the south of Florence is the town of Impruneta, the collegiate church of which contains some of the very best works of Luca della Robbia. These treasures are practically unknown. The foreign tourist is not likely to know them, for Bædeker and Meyer and Murray do not even mention the town, the Guide Joanne³⁰ speaks only of the pine trees, of a venerated sanctuary and an annual fair, and Marcott³¹ omits all mention of these monuments. Even the specialist is likely to miss them, for those who have written best upon the works of the della Robbia, Barbey de Jouy,³² Delaborde,³³ Cavallucci and Molinier,³⁴ Milanesi,³⁵ Bode,³⁶ and Müntz,³⁷ make no mention of these monuments at Impruneta. Brogi has photographed the three altar pieces,³⁸ without assigning them to any author and attributes the Crucifixion relief vaguely to the one of the della Robbia school.

Carocci, in his little work, *I Dintorni di Firenze* (1881), gives a notice of the church at Impruneta and its contents, and mentions the "stupendous terracottas of Luca della Robbia" without further detail. So far as I am aware the only notice taken of these important monuments is to be found in a rare work by Giovanni Battista Casotti, entitled, *Memorie istoriche della Miracolosa Immagine di Maria Vergine dell' Impruneta*, published in Florence in 1714. In this work Casotti gives a careful description of the church at Impruneta, treating of its history and some of its monuments, with special reference to the festivities and processions connected

³⁰ *Italie du Centre*, 1891, p. 188.

³¹ *Guide-Souvenir de Florence*, 1892, p. 297, 298.

³² *Les Della Robbia*, Paris, 1855.

³³ *La Renaissance des Arts*, Tome II, p. 1005, ff. Paris, 1855.

³⁴ *Les della Robbia*, Paris, 1884.

³⁵ Notes to VASARI, II, p. 167 ff., Florence, 1878.

³⁶ *Die Künstlerfamilie Della Robbia*, in DOHME, *Kunst und Künstler*, No. XLVII; *Italienische Bildhauer der Renaissance*. Berlin, 1877; *Luca della Robbia ed i suoi precursori in Firenze*, in Archivio Storico dell' Arte. 1890 and 1891.

³⁷ *Histoire de l'Art pendant la Renaissance*. Paris, 1889-1891.

³⁸ Brogi, photo. No. 9889-9891.

with a much treasured ancient painting representing the Virgin. The three Robbia altars are the altar of the Holy Cross, the altar of the Madonna, and a Crucifixion.

1. The Altar of the Holy Cross (Plate vi).

As we enter the church and proceed up the nave we find two altars covered with imposing architectural tabernacles. The altar to the right is now known as the Altar of the Holy Cross. This was formerly known as the Cappella del Santissimo,³⁹ and had special reference to the Holy Sacrament, as the sculptured decoration of the predella indicates. But a sacred treasure came to the possession of the church—large fragments of the wood of the true cross. These were presented by Filippo degli Scolari, Count of Temesvar and Ozora, known as Pippo Spano; they form the largest relic of this character in all Christendom. Hence the altar came to be known as the Altar of the Holy Cross.⁴⁰ Its new significance is represented by the beautiful central panel of gilded bronze exhibiting a cross with all the emblems of the passion. This was not made until 1636 by the sculptor Cosimo Merlini,⁴¹ but the architectural framework of glazed terracotta with the figures of S. John the Baptist and a bishop fixes our attention, and we regard it as one of the most important products of xv century sculpture. We cannot remain in the presence of such a monument long without recognizing in it the ripest workmanship of Luca della Robbia. This will become more certain as we examine it in detail.

(a) The Predella. Here are represented eight angels, two pair on either side of a central door. The door is heavy, like the door of a tomb. It forms a *ciborium* or place of deposit for the Sacred Host, and the angels have their hands folded in adoration. The two terminal angels are boy-angels, and the inscriptions which

³⁹ CASOTTI, *Memorie istoriche*, etc., p. 34.

⁴⁰ CASOTTI, *op. cit.*, p. 35. The relic of the Holy Cross presented by Pippo Spano must have been in possession of the church long before this altar was built, since he died in 1426. But the relic may not at first have been so highly reverenced, or it may have been kept elsewhere.

⁴¹ CASOTTI, *op. cit.*, p. 36. Before 1636 the tabernacle may have been closed by painted wooden doors, as was the corresponding altar across the nave of this church.

they carry explain the significance of the predella. The one to the left carries a scroll inscribed

PROBET AVTEM SEIPSVM HOMO
ET SIC DE PANE ILLO EDAT,

while the angel to the right carries the inscription,

HIC EST PANIS VIVVS
QVI DE CELO DESCENDIT.

Both point toward the central sacramental door. We know of other angels by Luca della Robbia, all in Florence: the angels on the Sacristy doors of the Cathedral; others on the lunette taken from S. Pierino in Mercato, now in the Museo Nazionale; the beautiful angels in the lunette in the Via dell' Agnolo; the angel with S. Matthew in the Pazzi chapel; the adoring angels in a medallion of the Madonna and child in the Museo Nazionale. We might go further and point out resemblances between these and other well known figures by Luca della Robbia; but it is enough that we find here the same type of angel, in similar attitudes, with similar treatment of the hair and wings and drapery, and producing the same spiritual impression. But while in other cases mentioned we have no more than two angels, here there are eight; so that we may recognize the method by which Luca della Robbia is guided in composition. The composition is merely an extension of that used in the bronze doors, in the lunettes and in the medallion. Instead of one angel on either side of the centre, there are two pair of angels balancing each other; and they fly toward the centre as if they were but the beginning of an angelic procession. The angels differ in costume and in sex; their positions also, with reference to the spectator, exhibit variety. As in other compositions Luca adopts a simple, balanced composition, involving repetition without monotony and showing unity though with considerable variety in detail.

(b) S. John the Baptist and S. Augustine.

In the beautiful figure of S. John the Baptist we have an appropriate subject for an altar of the Holy Sacrament. He is not only the forerunner compared with the bishop as the successor of

Christ, but is essentially a figure of sacramental significance. He was dear to the hearts of the Florentines, and a protector of Impruneta, having a chapel in the old cloister almost directly below this very altar.⁴² Luca had himself placed the Baptist in an important position upon the sacristy doors of the Cathedral at Florence. In comparing this S. John with that of the sacristy doors we see here a milder and less haggard type, and yet it is the same figure in riper form. We recognize the same general features of the face, the same swinging drapery over the garment of hair, the same strong shin-bones and carefully modelled feet; the cross also has similar indented extremities, and is grasped by S. John in the same way. The pose here is very similar to that of the S. John in Fra Angelico's Crucifixion in the Chapter House of S. Marco, and it is possible that Luca might have been influenced by that great fresco, but Luca's S. John is less ascetic and more beautiful. If we consider this figure in the light of what we already know of Luca della Robbia's work in glazed terracotta we find additional means of identifying it as his work. The base on which the figure stands slopes downward toward the spectator and is colored a clear brown; the glaze is fine and hard; the eyes have yellowish blue irises, with brows, lashes, pupil and iris-boundary of blue.

In determining who is the bishop here represented we have our choice between a local bishop and a typical character. There are strong reasons for thinking of a local bishop, for at this time the church owed a heavy debt of gratitude to Antonio di Bellincione, a member of the Cari branch of the Agli family. He was a canon and the first dean of this collegiate church; he was archbishop of Raugia and bishop of Fiesole and then of Volterra. The old Pieve at Impruneta was very dear to his heart, and from the year 1439 to his death in 1477 he devoted himself to its restoration. He rebuilt the church, expending from his own private resources more than 12,000 florins in its enrichment and endowment. Here was certainly an opportunity for the church to have shown its gratitude. But the good bishop does not appear to have become a local saint, and between his death and that of Luca

⁴² CASOTTI, *op. cit.*, p. 41.

della Robbia in 1482, there was none too much time for a monument to have been raised to him by popular subscription. It would seem to be more in harmony with the spirit of the times and with the character of the monument to interpret this bishop as of more general and symbolic character. Upon the same sacristy doors where Luca had represented S. John the Baptist we find figures of the four Fathers of the Church. Two of these, S. Ambrose and S. Augustine, have more or less resemblance to the figure before us. We may accordingly assume that if only one of the Fathers should be selected, it would be the greatest, S. Augustine, who might well stand over against S. John Baptist as a symbol of the completed Christian faith. This identification receives some support from the predella, for the words *Hic est panis qui di celo descendit* appear in the Romish service for the Holy Sacrament under the heading *Homilia Sancti Augustini Episcopi*.

(c) The architectural framework which encircles the Holy Cross is the most elaborate and at the same time the most beautiful framework in the Robbia monuments. It combines the technical methods of enamel painting and of sculptured relief against a polychrome background. Where can we discover pine cones⁴³ so finely enameled except upon Luca's monument to Bishop Benozzo Federighi at S. Francesco di Paola at Bellosuardo? We may search the works of the Robbia school in vain for pilasters more beautifully decorated than these with their exquisite floral tracery relieved against a background alternately of violet and blue and green. The capitals vary little from those he used in the Peretola monument and carry us back to the capitals of the Pazzi chapel, with which he was so familiar. The architrave shows a more refined sense of proportion in the relative heights of its successive parts as compared with the evenly divided architrave at Peretola. The frieze, the design of which recalls the base of the tabernacle at Peretola and the medallion of the Master Workers in Stone and Wood at Or San Michele, exhibits small rosettes of yellow in larger rosettes of blue enclosed in twining bands of light blue. The strength of the design in a measure atones for the shortness

⁴³ The pine cones here and in the ceiling of the baldachino suggest the pine grove in which the original church was built. It was known as S. Maria in Pineta, corrupted to Impruneta.

of the freize. The cornice and pediment exhibit a richer combination of mouldings than any of Luca's other works. We might remark upon a similar use of mouldings in the Portogallo medallions and in the medallion of the Physicians and Druggists at Or San Michele, but this perhaps is driving the argument from analogy to its utmost limit. In assigning a date to this monument we see clearly that it must belong to Luca della Robbia's latest and ripest period. It is a resumé of his best productions. We feel that he had already accomplished the Peretola Tabernacle (1441–1443) and the tomb of Bishop Benozzo Federighi (1457), and the bronze sacristy doors (1446–1467). This would bring the monument to close of the period of the restorations made by Antonio degli Agli, that is 1477. The same result is reached, if it be true, as we suppose, that Michelozzo Michelozzi was associated with Luca della Robbia in his work at Impruneta, as in the case of the Florentine sacristy doors and the chapel at San Miniato.⁴⁴ The baldachinos which cover the altars which we are studying at Impruneta have a strong resemblance to the Cappella S.S. Annunziata at Florence,⁴⁵ attributed by Vasari to Michelozzo.⁴⁶ Now Michelozzo's death occurred between 1470 and 1480.

2. The Ceiling of the Church of the Holy Cross.

The baldachino which covers the altar of the Holy Cross has a ceiling consisting of twelve square panels of glazed terracotta. These panels exhibit yellow rosettes in blue circular fluted shells, from the outside of which four pine cones project to the four angles. The mouldings are the opposed flat and raised leaf moulding used in the cornice of the altar piece. Analogous terracotta ceilings by Luca della Robbia are found in the portico of the Pazzi chapel and in the vault of the chapel at San Miniato.

3. The Altar of the Madonna (Plate VII).

The altar to the left of the nave and opposite the Altar of the Holy Cross is known as the Altar of the Madonna. Behind the altar is a marble tabernacle on either side of which are terracotta

⁴⁴ MILANESI-VASARI, II, p. 175 and p. 444.

⁴⁵ STEGMANN U. GEYMÜLLER, *Die Architektur der Renaissance in Toscana*, Pl. XIII.

⁴⁶ MILANESI-VASARI, II, p. 444.

figures representing S. Luke and S. Paul. These figures are the work of Luca della Robbia.

More important even in the eyes of the people than the relic of the Holy Cross is the ancient picture of the Virgin which this tabernacle contains. This painting is of the Byzantine type, and represents the Virgin without the infant Christ. It is highly venerated on account of its antiquity and supposed miraculous qualities, and is carried on occasions in processions from Impruneta to Florence. Once lost it was found in the fields over the spot where ploughing oxen reverently fell with bended knees. This recovery of the image was figured in 1323 upon the old bell⁴⁷ of the church, and upon the new bell cast in 1683, and we see it on the predella of the present tabernacle. It appears also upon a copperplate engraving by Stephano della Bella in 1633, from which the frontispiece of Casotti's book was copied. This engraving also preserves to us a representation of the interior of the painted doors of the tabernacle which existed up to the beginning of the last century, and which were replaced in 1712 by the door which exists to-day, with its floral ornaments of silver on a background of gold, together with a medallion representing the archangel Raphael and Tobias with the fish.⁴⁸ This design is explained by the fact that the door was presented by the *Compagnia dell' Angelo Raffaelo*, whose patron saint was the archangel Raphael.

The two figures on the sides of the tabernacle we recognize as S. Luke and S. Paul. S. Luke, suggested on account of his supposed authorship of the picture of the Madonna, represents the Gospel, while S. Paul symbolizes the diffusion of the glad tidings through the Epistles. For the figure of S. Luke we find an analogue in the sacristy doors, but the figure of S. Paul is unique in the work of Luca della Robbia. The dignified spirit of both figures, the fine glaze, the broad treatment of the drapery, the restrained modelling of the hair and hands and feet, the coloring of the eyes, even the ground on which they stand, all these evince Luca's workmanship. The attribution of the tabernacle to Luca

⁴⁷ CASOTTI, *op. cit.* p. 54.

⁴⁸ Brogi, photo. No. 9889.

della Robbia is more difficult, since it resembles strongly the door of the Cappella del Noviziato at Santa Croce, highly praised by Vasari and ascribed by him to Michelozzo.⁴⁹ It also resembles even more closely the beautiful tabernacle on Or San Michele which enshrines Verrocchio's group of the doubting Thomas.⁵⁰ This is ascribed by Vasari to Donatello⁵¹ and catalogued by Milanesi⁵² as made in the year 1457. The tabernacle at Impruneta impresses us as a weak reflection of the tabernacle at Or San Michele, and more likely to have been made by Michelozzo, the pupil of Donatello, than by Luca della Robbia. But we need not overlook the fact that the prototype of both monuments is to be found in Luca's tabernacle at Peretola. If our attribution be correct the Impruneta tabernacle was made after 1457 and before the death of Michelozzo (circa 1472), and was probably slightly earlier than the Altar of the Holy Cross.

4. The Frieze and Ceiling of the Chapel of the Madonna.

The *baldachino* or chapel which covers this altar has a frieze in terracotta, which we also attribute to Luca della Robbia. It is placed on the outside of the chapel, and consists of two similar portions one of which faces the nave, the other the Chapel of the Holy Cross. On each side the frieze contains a half figure of the Madonna holding in her arms the undraped child holding a quince. These groups are in white against a blue ground. They are identical in treatment with a monument in the Museo Nazionale,⁵³ rightly attributed by Umberto Rossi to Luca della Robbia.⁵⁴ The fruit frieze in which these figures are inserted consists of polychrome bunches of fruit and leaves arranged in pairs or groups of four, analogous to the frame of the Silk Merchants' medallion on Or San Michele.⁵⁵ The fruit is treated in a large, effective manner and stands out clearly from a white background. The ceiling of this chapel is similar to that of the chapel of the Holy Cross.

⁴⁹ MILANESI-VASARI, II, p. 442.

⁵⁰ Alinari, photo. No. 2821.

⁵¹ MILANESI-VASARI, II, p. 404.

⁵² MILANESI, *Catalogo delle opere di Donatello*, 1887, p. 18.

⁵³ Alinari, photo. No. 2785.

⁵⁴ *Archivio Storico dell' Arte*, 1898, p. 7.

⁵⁵ See Plate v, No. 2.

5. Relief representing Christ on the Cross, at the foot of which stand the Virgin and S. John (Plate viii).

In a chapel adjoining the chapel of the Holy Cross is a glazed terracotta round-headed relief, 1.50 m. high by 65 c. wide. It represents Christ upon the Cross; above the cross is figured the pelican plucking her breast to feed her young with her own blood; at the head of the cross is affixed the inscription .I-N-R-I-; at the sides of the Crucified One are weeping angels; at the base stand the sorrowing Mother and the Beloved Disciple; a skull, the emblem of death, is placed at the foot of the cross. The figures are white against a blue background, but other colors are employed. The stony ground is a greenish gray, the cross imitates the color and grain of wood, the pelican's nest is green, while blue is employed for eyebrows and eyelashes, and yellow for the irises of the eyes.

Having been acquainted with this monument only through the photograph by Brogi,⁵⁶ I was prepared to find here an interesting example by some unknown member of the Robbia school. Great was my surprise when I recognized the technical qualities of Luca's handiwork. Here was a rocky ground similar in character and color to that in the Ascension relief in the Cathedral in Florence, a similar handling of drapery and treatment of hair, and an identity in the coloring of the eyes. Add to this the resemblance of these angels to the flying angels in the Resurrection relief in the Cathedral in Florence, and the impression becomes still stronger that this relief is to be attributed to the elder Luca. Even the inscription at the head of the cross shows the same form of letters separated by the same wedge-shaped periods which are found on the inscription on Bishop Federighi's tomb. But strong as these resemblances might be there was an unexpected pathos in the spirit of the relief, which seemed at variance with the calm beauty and dignity to be expected from Luca della Robbia, and which characterizes even crucifixion scenes in the works by his successors.⁵⁷ The types of the Christ, the Virgin and S.

⁵⁶ Brogi, photo. No. 9891.

⁵⁷ Compare the altar pieces at Arezzo (Alinari, photo. No. 9412), at La Verna, (Alinari, photo. No. 5087), and at Fiesole, church of S. Maria (Alinari, photo. No. 8271.

John seem to be different from those in other works of Luca della Robbia. The pathos of the relief, however, and the variation of types are not uncharacteristic, but to be expected, especially in Luca's earlier work. In the Pietà represented on the marble tabernacle at Peretola we find the same wringing of hands and the same agonized expression. This is his inheritance from Ghiberti and the trecentists, as we may see by comparing this relief with Ghiberti's treatment of the same subject on his earlier gates⁵⁸ for the baptistery at Florence. The Christ is also very similar to the Peretola type and does not differ from that of the Federighi tomb, though it resembles less the Christs in Luca's relief in the Florentine Cathedral. Similarly if we should examine seriatim the Madonnas of Luca della Robbia, their differences would be even more striking than their resemblances. Even his S. Johns represent to us different individuals, but on this account we need not reject this S. John as by Luca della Robbia, especially as the Ascension relief at Florence contains heads of the same general character.

From the comparisons we have made it may be gathered that this monument is approximately of the same date as the tabernacle at Peretola (1441–1443) and the Ascension relief at Florence (ordered Oct. 11, 1446). The tomb of Bishop Federighi (1455–1457) already shows the changed treatment of pathetic themes.

ALLAN MARQUAND.

Princeton University, March, 1893.

⁵⁸ Alinari, photo. No. 1834.

EGYPTIAN CHRONOLOGY.

The consecutive life of history is chronology, without which it becomes shadowy and mythical. To be reliable it must be based on a time-scale, such as is determined by astronomy. It is said that Egypt has never had a chronology, because it is claimed that it never had a definite starting point or a fixed era. But we think this is a mistake; it would be more accurate to say that its chronological system and calendar had been lost and forgotten. The epoch of Menes has ever been at least one fixed starting point and standard era. Modern research will sooner or later discover its lost chronology, and be able to gather up the threads that have been woven into the fabric now known as its lists of dynasties. A technical chronology for Egypt must necessarily have reliable starting points with fixed dates astronomically determined as way-marks; and the more numerous they are the more certain and reliable the chronology based thereon will become.

The Egyptian Calendar was crowded with festivals. Every week, and every day in the week, had its special rites to be either weekly, monthly, half-yearly, or yearly observed. There was a perpetual round of religious services, special or general. Some day we may discover the rule for their observance; and amongst them obtain a clue to the lost chronology of this ancient people. Our present object is to consider one such clue, which has never yet been distinctly understood, known or recognized. The bilingual monument known as the Rosetta stone, which has opened Egyptian literature to the world of letters, several times refers to the "great solemnities" and festivals, called in old Egyptian "*hibu set*." One of these, known as the "THIRTY-YEAR CYCLE," is probably one of the oldest, if not the very oldest, in the Calendar, and goes back to the very genesis of Egyptian history. Vestiges of its ancient character can still be found in the

Hindoo, Persian, Mohammedan and Grecian modes of reckoning time, and the Moslems have always had a lunar "Thirty-year Cycle," with eleven days added, making $354 \times 30 + 11 = 10631$.

This "Thirty-year Cycle" was not only the most ancient, but had also special privileges attached to its recurrence. It was divided into ten sections or intercalations of three years each, at which a grand festival was held. At the close of every twelve cycles $= 12 \times 30 = 360$ years, five years were added in order to adjust it to the Sothic Great Cycle of 1460 years, or $365 \times 4 = 1460$. These three-year intercalations are kept by the Egyptians as great festivals, called "hibu set," during which it was their custom to erect temples, monuments, monoliths or obelisks and memorials of every kind. They were memorial festivals in an eminent degree, and the ceremonies and festivities were specially devoted to this kind of use. The most eminent were always reserved for the First Intercalation, or third year in a new cycle of thirty years. As it could only occur once in thirty years, the heir-apparent to the throne was usually crowned on this memorial year; the august ceremony of coronation taking place usually on the day of this First of the Ten Festivals forming the Thirty-year Cycle.

This simple example of an ancient custom in Egypt will throw a flood of light on the subject which, up to present date, has always appeared a mystery; nor has any explanation of the custom, to my knowledge, ever before been published. I allude to the coronation of the heir-apparent at this first festival, and his admission to joint occupancy of the kingly rule, no matter how young the heir-apparent might be, even if he should be comparatively an infant. In a primitive state of society this was a wise and necessary custom; as a precautionary measure it settled the question of succession, and the people were accustomed to the authority and rule of the next Pharaoh before the death of the actual sovereign took place. It also provided for the succession before the infirmities of old age rendered abdication necessary; and finally, it put an end to the strife of rival claimants and incipient revolt, which too often resulted from the sudden death of the king.

Thus Rameses II, oppressor of the Jews, at whose court Moses was trained, was crowned when only a mere youth ten years old. Why at that time? Because the First Festival in the "Thirty-year Cycle" then took place. His coronation settled the succession, and all rival claims were at an end. He was a crowned king—a Pharaoh from that time forth and sharer in the administration of the national affairs. The most turbulent times, when revolution succeeded revolution, and Egypt was divided into petty kingdoms, appear to have taken place when a king sat on the throne who had not been crowned beforehand according to custom at the first festival of a "Thirty-year Cycle." Khamuas, eldest son of Rameses the Great, was crowned at one of these festivals according to custom, but afterwards died. Menephtah, the fourteenth son, then became heir-apparent and was crowned at the next first festival of the Cycle, about seven years before the death of Rameses, his royal father.

Can we find any confirmation of this monumental evidence? Let us see.

It is a matter of indifference whose system of chronology we adopt for the purpose of illustrating our theory of this ancient cycle. We might take any one system of such modern authorities as Maspero, Brugsch, Mariette, or Lepsius, for they all place Seti I in or about the year 1400 b. c. A few years ago the whole civilized world was startled with the discoveries of the genuine mummies of Seti I, his son Rameses II, and their peers, belonging to the seventeenth, eighteenth, nineteenth, twentieth and twenty-first Dynasties, with a few minor royalties and priestly personages of both sexes, with various court functionaries of the two last dynasties. At this time Egyptologists generally fixed the date of Seti I at about 1400 b. c. We will therefore adopt a medium date of 1392 b. c., and hold the Egyptologists generally responsible for the system of chronology which this date imposes on our illustrations. We do not introduce a system of our own, but take that which our modern, living Egyptologists have placed in our hands.

Accordingly, Seti I would begin his reign in the year 1392 b. c., and the date of his warlike son Rameses' birth would be 1390 b. c.

According to the above named cyclical rule and custom, the nearest "Thirty-year Cycle" to the birth-date of Rameses would be 1383 B. C., and the first festival would be at the close of the first three years—for there were ten festivals in the series of thirty—or at the date 1383–3=1380. That would be the date of his coronation, according to this system of modern chronology. And since he was born in 1390, he would be ten years of age when crowned at this festival. Rawlinson, in his *Ancient Egypt*, says: "At the age of ten or twelve Seti had Rameses crowned as king, and admitted him, at first to a nominal and afterwards to a real participation in the government. The chronology of the two reigns has been confused by this association. It is uncertain in what year of his reign Seti made Rameses joint ruler." Again, an inscription quoted by Brugsch (*Hist. of Egypt*, Vol. II, p. 24) says: "Thou wast raised to be a governor of this land when thou wast a youth, and countedst *ten* full years." Let us now step back a little and test the case of his father Seti I.

Seti began to reign in 1392 B. C., and reigned twelve years alone. His royal son Rameses II was born in 1390, in the second year of Seti's rule. That Seti was in full mature years when he ascended the throne is evident from the fact, that after a short reign of Rameses I, he at once took the field against a formidable revolt on his northeastern frontier, consisting of Semitic and Turanian races. In the first year of his reign he began a war with the Shasu. Starting from the fortress of Khetam he mounted his chariot, directed the forces and planned the campaign, entered the Philistine territory, overran Idumea, slaughtered the garrisons of all fortresses, and spread desolation all over the hill country from Egypt to Canaan which he subdued. He has recorded these events in an inscription quoted by Brugsch (*ibid.* p. 13). This prowess shows clearly he had arrived at the age of maturity when crowned. So that the custom of holding the coronation of the heir-apparent at the first festival of the "Thirty-year Cycle" could not apply to his case, nor to that of his father Rameses I, the founder of the dynasty. But Seti I followed the rule and custom. Rameses II was born two years after his father became king; and although three festivals occurred during the first ten years of his childhood,

yet Seti allowed them to pass, and had the coronation of his son, Rameses II, take place at the first festival of the new cycle of thirty years, in 1380 b. c., when the boy was only ten years of age.

The next cycle began in the thirtieth year of Rameses' reign, 1353 b. c.; and at that first festival of the cycle he had his son Khamuas crowned in agreement with the custom. But Khamuas died during the cycle, and his place was supplied by Menephtah the fourteenth son of Rameses. Again the custom was followed and Menephtah was crowned at the first festival of the next new thirty-years cycle, in the sixtieth year of Rameses' reign, and six years prior to his death in 1314 b. c. The date of Menephtah's coronation would be 1320 b. c. So that the thirty-year cycle of 1322 b. c. would fall in his reign, beginning with 1322 b. c., and ending in 1292 b. c. In fact the great Sothic cycle of 1460 years would end with the coronation of Menephtah. A more notable astronomical incident could not have happened to fix the date of Menephtah's reign, and the closing career of the great Rameses II. Therefore two such thirty-year cycles occurred during the sovereignty of Rameses II. Menephtah reigned about thirteen years and died in 1307 b. c. He was followed by his son Seti II, who was not crowned according to the usual rule, because his father's death occurred about eleven years before the thirty-year cycle closed.

Menephtah's name in Egyptian was Meri-en-Phtah, or "beloved of Phtah," favorite of the Creator. He was also known as Menophres in whose reign the Sothic period of 1460 years closed, and a new period began, the date being 1322 b. c. Wilkinson (*An. Egypt.*) says: "The king in whose reign the Sothic period was fixed is said to be Menophres." This test case is rendered the more notable from the fact, that the Apis-cycles of twenty-five vague years each began also in the year 1322 b. c., at the same time as the new Sothic period of 1450 years, and a new series of thirty-year cycles. Lepsius also gives the year 1322 b. c. as the date of Menephtah or Menophres. Here, then, we have a well established astronomical starting point for our illustrations—and a more notable one could not be demanded, on account of its relation to the date of the Exodus.

That a thirty-year cycle was in use at the time stated we have monumental evidence. The tomb of Knum-hotep at Benihassan contains a list of twelve festivals, or one whole cycle, and two festivals of another, inscribed under the XIIth dynasty. And Rameses II has recorded a series of these festivals belonging to one and the same cycle, at Silsilis. The first occurred in the thirtieth year of his reign, 1350 B. C., when his eldest son Khamuas was crowned. The second, third, fourth and fifth festivals are recorded, the last is said to have been in the forty-fifth year of his reign; thus proving that the festivals occurred at intervals of three years. It is further confirmed by an Anastasia papyrus, which refers to a still later festival of the same cycle, dated 26 Mechir, in the fifty-second year of his reign. It must, therefore, have been the eighth festival in the series of ten forming the thirty-year's cycle, and three festivals before Rameses' successor, Menephtah, was crowned heir apparent, reigning jointly with his father.

We meet with the hieroglyphic form of the obelisk as early as the Vth dynasty: but the obelisk set up by Usurtasen I, of the XIIth dynasty, is the earliest of the kind possessing any considerable importance or grandeur: and has the rare advantage of still remaining on the spot where it was originally set up. It rises sixty-six feet above the plain, is formed of the hardest and most beautiful rose-colored granite, and contains a deeply-cut hieroglyphical legend repeated on its four sides. The inscription says: "The Horus-Sun, the life of those who are born, king of the Upper and Lower lands, Khepr-ka-ra: lord of the double crown, son of the sun-god Ra, Usurtasen: friend of the spirits of On, ever-loving golden Horus, the god Khepr-ka-ra, has executed this work in the *beginning of the Thirty-year Cycle.*" This inscription is invaluable in its relation to the early existence and national use of this cycle as forming a connecting link—the missing link in fact—of the Egyptian Sothic Calendar. It was set up by Usurtasen I, of the XIIth dynasty, at Heliopolis, to commemorate the date of his coronation, which took place according to ancient custom on the first festival of the thirty-year cycle. He was then only ten years of age, and in this respect his case is very much like that of Rameses II, who was also crowned when only ten years old, at the first festival of a new cycle. The cycle when

Usurtasen was crowned would be the twenty-second in the series from the beginning in 2782 b. c., and the date would be 2110 b. c. He reigned ten years jointly with his father, and exercised royal authority for about thirty-five years. At the close of the cycle of thirty years, he followed the usual royal custom and ordered the coronation of his son Amenemhat II, who exercised royal authority jointly with his father about four or five years. To commemorate the event Usurtasen raised a second obelisk in the Fayoum, of a superior character, though less in height. It would be in the twentieth year of his sole reign and the first festival in the new cycle. On the upper portion of the obelisk he is represented as worshipping *twenty* of the principal deities—the twenty he had most favored during his twenty years of sole reign. The date was 2080 b. c.

Amenemhat II took the official name of Nub-kau-ra, and had a sole reign of about thirty-two years. Following the royal custom of his predecessors, at the next first festival of a new thirty-year cycle, he elevated his son Usurtasen to the royal dignity and reigned jointly with him for about six years before entering the eternal abode. This would be the twenty-fourth cycle from the beginning of the second Sothic cycle in 2782 b. c., the date being 2049 b. c. Usurtasen II had the throne name of Shakhapr-ra, and had a sole reign of thirteen years only. He died before the thirty year's cycle closed: so that his successor would not be crowned, and was not crowned as his predecessors had been. Still earlier evidence is to be found in the period of the VI dynasty. The Sinai rocks contain a monumental inscription of the VI dynasty, recording the first festival of a thirty-year cycle, dated twenty-seventh of the eleventh month and eighteenth year of Pepi I of that dynasty. The date is 3074 b. c., and refers to the thirty-ninth cycle from the beginning of the first Sothic series in 4242 b. c.

The twin obelisks raised at Thebes, and the twin obelisks at Heliopolis raised by Thothmes III, were set up on the first festival of one of these thirty-year cycles: the dates are 1532 and 1502: which again shows how the cycle was used, computed and formed an integral part of the Sothic Calendar of 1460 years of 365 days to the year. The addition of five days was called the

Epact, and evidently originated in very remote times. A box containing a record of this addition of five days, belonging to the time of Amenophis III, of the xviiith dynasty, is now to be seen at Turin. But there is abundant evidence that this Epact was also officially the close of twelve "Thirty-year Cycles." Wilkinson says: "As the Sothic period was fixed in 1322 b. c., from observations, it is evident that these must have been continued during the time elapsed up to that year, which would throw back the beginning of their observations to a very remote age. The king in whose reign the Sothic period was fixed is said to be Menophres of the xixth dynasty."

Returning to the case of Rameses II it is interesting to note that within a few months of the joint rule of Seti I and his son Rameses II, falls the date of the famous "tablet stela of 400 years," found at San, the ancient Zoan of the Bible. Of course this tablet must be regarded as authentic, and set up with royal authority, as the tablet itself declares. The date of this San stela is fourth Mesori, or twenty-eighth July, and the beginning of a joint rule of Seti I and Rameses II. A close inspection will prove that it is a very important stone document. Rameses claims descent from the Hyksos rulers who held sway in Egypt 400 years previously. This "tablet of 400 years" would begin therefore from the joint rule of Seti I and Rameses II in 1380, and would carry us back to $1380+400=1780$ b. c., or to the king Set Aapehti Nubt, a predecessor of Apophis, under whom Joseph served and directed the counsels of the king. The existence of this tablet implies the existence of a calendar on which it is based.

We have confined our illustrations mainly to the era of Rameses II, because of its intrinsic importance in relation to biblical times and chronology—the times of the oppression and the Exodus: and because it stands about midway between the Christian and Pyramid times, and can be used to help in solving the historic chronology, looking in both directions. Our main object has been to show the utility of using fixed dates determined astronomically as so many reliable landmarks, and thus reducing conjecture to a minimum.

RECOVERY OF THE LOST CALENDAR.—It would seem that our Egyptologists have been mistaken in assuming that the Egyptians

had no chronology, nor any fixed era or starting point. We have seen that they had a calendar by which all dates and epochs were measured and located, that the epoch of 4242 B. C. was one of the starting points in their historic chronology, and that they divided up the great Sothic cycle of 1460 years into forty-eight lesser cycles of thirty years each, and commonly known as festivals called "hibu set" or great solemnities. The kings, it is true, dated their annals by their regnal years, and the dates of a king's accession and demise were commonly placed on record by the priests, so that the entire length of his reign could be known, and no special care was taken to distinguish the years of his sole reign from those during which he was associated with his predecessor. Neither as a general rule were contemporary dynasties distinctly marked. But the fact has been forgotten that the dates of the king's accession and death, and all other notable events were linked together by being made parts of a "Thirty-year Calendar or Cycle," which stood in successive order in the list of forty-eight cycles forming the great Sothic Cycle of 1460 years, of which each king's accession formed one of the notable events in some one of these forty-eight cycles of thirty years each. The following chronological synopsis of the Calendar—tabulating three entire Sothic Cycles of 1460 years each, with the series of forty-eight cycles forming this one grand period—will illustrate this Egyptian system of chronology. The following Table begins with the first cycle, and with the first month Thoth, when the Sothic Cycle begins.

TABULAR VIEW OF THE SOTHIC CYCLE OF 1460 YEARS.

First Sothic Cycle: 4242 B. C.—2782 B. C.

	4242 B.C.		B.C.
I	4211.583	XXV	3481.583
II	4181.167	XXVI	3451.167
III	4150.750	XXVII	3420.750
IV	4120.334	XXVIII	3390.334
V	4089.917	XXIX	3359.917
VI	4059.504	XXX	3329.504
VII	4029.084	XXXI	3299.084
VIII	3998.667	XXXII	3268.667

IX	3968.250	XXXIII	3238.250
X	3937.834	XXXIV	3207.834
XI	3907.427	XXXV	3177.427
XII	3877.000	XXXVI	3147.000
XIII	3846.583	XXXVII	3116.583
XIV	3816.167	XXXVIII	3086.167
XV	3785.750	XXXIX	3055.750
XVI	3755.334	XL	3025.334
XVII	3724.917	XLI	2994.917
XVIII	3694.504	XLII	2964.504
XIX	3664.084	XLIII	2934.084
XX	3633.667	XLIV	2903.667
XXI	3603.250	XLV	2873.250
XXII	3572.834	XLVI	2842.834
XXIII	3542.427	XLVII	2812.427
XXIV	3512.000	XLVIII	2782.000

Second Sothic Cycle: 2782 B. C.—1322 B. C.

	2782 B. C.		B. C.
I	2751.583	XXV	2021.583
II	2721.167	XXVI	1991.167
III	2690.750	XXVII	1960.750
IV	2660.334	XXVIII	1930.334
V	2629.917	XXIX	1899.917
VI	2599.504	XXX	1869.504
VII	2569.084	XXXI	1839.084
VII	2538.667	XXXII	1808.667
IX	2508.250	XXXIII	1778.250
X	2477.834	XXXIV	1747.834
XI	2447.427	XXXV	1717.427
XII	2417.000	XXXVI	1687.000
XIII	2386.583	XXXVII	1656.583
XIV	2356.167	XXXVIII	1626.167
XV	2325.750	XXXIX	1595.750
XVI	2295.334	XL	1565.334
XVII	2264.917	XLI	1534.917
XVIII	2234.504	XLII	1504.504
XIX	2204.084	XLIII	1474.084
XX	2173.667	XLIV	1443.667
XXI	2143.250	XLV	1413.250
XXII	2112.834	XLVI	1382.834
XXIII	2082.427	XLVII	1352.427
XXIV	2052.000	XLVIII	1322.000

Third Sothic Cycle: 1322 B. C.—139 A. D.

	1322 B.C.		B. C.
I.....	1291.583	XXV.....	561.583
II.....	1261.167	XXVI.....	531.167
III.....	1230.750	XXVII.....	500.750
IV.....	1200.334	XXVIII.....	470.334
V.....	1169.917	XXIX.....	439.917
VI.....	1139.500	XXX.....	409.500
VII.....	1109.084	XXXI.....	379.084
VIII.....	1078.667	XXXII.....	348.667
IX.....	1048.250	XXXIII.....	318.250
X.....	1017.834	XXXIV.....	287.834
XI.....	987.417	XXXV.....	257.417
XII.....	957.000	XXXVI.....	227.000
XIII.....	926.583	XXXVII.....	196.583
XIV.....	896.167	XXXVIII.....	166.167
XV.....	865.750	XXXIX.....	135.750
XVI.....	835.334	XL.....	105.334
XVII.....	804.917	XLI.....	74.917
XVIII.....	774.500	XLII.....	44.500
XIX.....	744.084	XLIII.....	14.084
XX.....	713.667	XLIV.....	17.334 A. D.
XXI.....	683.250	XLI.....	47.750
XXII.....	652.834	XLVI.....	78.167
XXIII.....	622.417	XLVII.....	108.583
XXIV.....	592.000	XLVIII.....	139.000

In this table we have recovered the long lost Sothic Chronological Calendar by which Egyptian festivals were regulated, numbered and classified, and their chronological place and date in history determined. Henceforth this calendar will form a working scale for future Egyptologists, who may feel disposed to use it; as it will materially help to classify the dynasties, so as to present them in something like an approximate historic form. The date of Khufu and the pyramid kings of the IV dynasty will be 3451 B. C. The date of Pepi I of the VI dynasty is 3074 B. C.; of Usurtasen I the date will be 2110 B. C.; the twin obelisks of Thothmes III at Thebes and Heliopolis will have the dates 1532 and 1502. Rameses II will be 1380, and Menophres will close the forty-eight cycles in the second Sothic cycle of 1460 years at the date 1322 B. C. Thus we contend the Egyptians did always have

a chronology, and counted their number of festivals by classifying them in this series of forty-eight "Thirty-year Cycles" in 1460 years. The starting point and zero of the second series being the epoch 2782 b. c. The famous "tablet of 400 year" found at San, constructed by Rameses II, was based on this thirty-year cycle calendar.

I think it not improbable that the restoration of this calendar will do more than any other agency to restore the lost chronology of the Egyptian nation. Out of ten obelisks four distinctly state that they were erected at the first festival, or third year of a thirty-years cycle. Such are those of Thothmes III at Thebes and Heliopolis; Usurtasen's obelisk, the one in New York, and the Campensis at Rome erected by Psammetichus II. These obelisks are really chronological monuments of the existence of this lost Sothic Calendar, which appears to have been in popular use in every age back to the time of the building of the Great Pyramid and the establishment of the Egyptian empire. Beginning at the early Christian period, we have Theon the astronomer who declares that the complete Sothic cycle of 1460 years ended in 139 A. D.; and all along the centuries backwards its existence has been acknowledged. It was noticed by Tacitus, Eratosthenes, Berosus, Manetho, Herodotus, and others during the five centuries before the Christian era. And we have traced it up from Menophres, Rameses, Usurtasen and Pepi I to Pyramid times. The early record of Pepi I can still be seen on the rocks of the Sinaitic peninsula.

The mode of reckoning by this thirty-years' calendar was as simple as the modern calendar we use to-day. The cycle was reckoned as the first, second, third, fourth, and so on successively to the forty-eighth cycle which ended the series, and completed the Sothic period of 1460 years. The cycle of Pepi I would be called the thirty-ninth thirty-year cycle in the series, having the date 3074 b. c. The cycle of Usurtasen's obelisk would be the twenty-second, having the date 2110 b. c. The cycles of Thothmes III's obelisks would be the forty-first and forty-second, having the dates 1532 and 1502 b. c. The coronation of Rameses II in 1380 b. c. would begin the forty-sixth cycle in the series. While the commencement of the Apis periods of

twenty-five vague years would close the second Sothic period of 1460 years in the year 1322 b. c., during the reign of the Exodus king Menephtah or Menophres. In this way the whole Sothic Calendar was chronologically connected in one unbroken chain from 4242 b. c. to 139 a. d.

By this means the great Sothic Cycle was simplified and divided into convenient festival periods of three years, ten of which made what was called a "Thirty-years Cycle." These festival periods were subservient to the popular taste for short recurrent festivities, whilst they enabled the scientist and astronomer to correct any error that may have crept into the vague or civil year.

SAMUEL BESWICK, C. E.

A SERIES OF CYPRIOTE HEADS IN THE METROPOLITAN MUSEUM.

The nude statuette published by Kiesertizky in the last number of the *Jahrbuch* of the German Institute, 1892, pp. 179-84 (Taf. 6), found in Egypt, and called "Apollo von Naukratis," has set in a clear light a series of heads in the Cypriote collection of the Metropolitan Museum in New York, which offer an interesting parallel in the arrangement of the hair and in other particulars. The close connection between the art of Cyprus in some of its phases and that found at Naukratis is patent to any one who compares the two, and attention has frequently been called to it. Naukratis and Daphnae (Defenneh), must have been the chief centres from which Egyptian influences in art passed to Cyprus in the seventh and sixth centuries, and it seems a fair inference that the arrangement of the hair in this statuette owes some of its distinctive features to Egypt, though it is characterized by certain qualities which habitually recur when the Greek hand employs itself upon foreign models. The Naukratite statuette has the hair parted, and divided into two distinct masses, each subdivided into separate, ridge-like locks, three on each side in front drawn down to pass behind the ears, and seven in the mass behind, descending from the crown in stiff parallel lines to the back just above the arm pits, ending in a straight line from which each can be traced distinctly back to the point of departure. The three locks on each side in front, after passing behind the ears, are brought forward and descend in flatter bands upon the breast as low as the mass behind. To keep the locks from falling over the face, a roundish band, painted red, runs across the forehead along the roots of the hair and disappears under the

locks before reaching the ears. Certain other features are also noticeable. The brow is low and broad, the eyes long, narrow, horizontal and forward; the nose prominent and forming an obtuse angle with the brow; upper lip rather prominent, but the lower suddenly retreating to a marked degree; chin projecting somewhat, but not beyond the line of the upper lip, so that the whole lower face falls away notably from the upper lip; ear not high, and merely outlined within, as so often the case with Cypriote statues. The general contour of the front face is striking in the disparity between the breadth of brow and narrowness of chin and mouth. One is reminded rather of a half than a full oval, somewhat as in the case of the bronze head, *Musées d'Athènes*, XVI, with its fine Apolline side face.

In the arrangement of the hair we may distinguish two general classes as found among the statuary at Naucratis, both of which may be seen in Egyptian statues and paintings: first, the division into two masses, one of which falls upon the back, and the other upon the breast, usually in three or more locks on each side; second, the absence of any locks upon the breast. For convenience I shall follow these divisions in classifying the Cypriote examples to be cited. These all appear in the "*Descriptive Atlas of the Cesnola Collection*," Vol. I, but in many instances they are small in the reproduction and indistinct, and their position is unfavorable for illustrating the points desired, so that an inadequate notion is gained from the plate alone. I shall refer, however, to the numbers of the *Atlas* for identification.

As the large majority of the Cypriote sculptures of the archaic period were intended to be set against a wall, with the habitual Cypriote negligence they were mostly left rough and flat behind or smoothed flat. Hence but few heads of this series exhibit the locks behind, but it can generally be seen that the larger mass of hair does descend to the shoulders. In accordance with another Cypriote habit, we need not expect complete nudity of body. In none of this series does nudity occur, so far as sufficient evidence is preserved to prove anything in the case.

- First class, with locks on breast:—

No. 47. Statuette playing double flute; preserved to waist; arrangement of hair almost a counterpart of the Naucratite

example; three locks on breast,¹ eight on the back; ears unusually high; eyes quite like the Naucratite, as well as front face; chin forwarded and some red where touched by the pipes; surface much worn away; band around brow not sculptured, but painted red, quite bright, as also chiton on breast; hair shows a black color, but this may be from fire.

No. 205. Statuette preserved throughout; flat, and arms fast to body from armpit to hands; band on brow sculptured and painted red; two locks to ears, three on breast; no modeling behind; eyes slightly less narrow; mouth small, somewhat pursed and drawn up at corners.

No. 38. Statuette preserved to waist; red band sculptured, and red on forehead; three locks toward ears and four behind, with three on breast; here not separated as before, but indicated by furrows, as often in Egypt; no modeling behind head; eyes long and contracted; narrow, pursed mouth, and protruding chin; lower face much narrower than appears in the *Atlas*; nose very large, especially at end.

No. 39. Statuette preserved to below the knees; red band sculptured; four locks in front and two behind ears; three on breast; head flat behind, but four flat, saw-tooth, cross-hatched locks are represented in low relief on shoulders; eyes oblique, long, but well open and convex; mouth drawn up in unison with the eyes; arms at side, but sculptured from elbows to armpits; enormous aquiline nose; male, as shown by indication of sex under chiton and mantle, as often in this Collection.

No. 40. Statuette preserved to below the knees; red band sculptured, but extends only a short distance and then disappears beneath the hair, though the red is continued on the forehead to the ears; two locks in front, without parting, and two behind ears; three on breast; no further modeling of hair; eyes narrow and oblique; small mouth and narrow projecting chin; upper line of chiton at throat indicated by red, as frequently; much red on garments.

No. 37. Statuette preserved to waist; sculptured band, no red apparent; two locks indicated to ears, without parting, but no others; three on breast; eyes horizontal, long, narrow and pro-

¹ This phraseology means on each side habitually.

longed noticeably at outer corners; slight smile on lips; face considerably worn.

Second class, without locks on breast:—

No. 465. Head and neck preserved; sculptured band, no red apparent; four locks to and behind ears, without parting; eyes horizontal, forward, flat and much prolonged at outer corner, as if in imitation of Egyptian; sickly smile on lips; upper face broad, lower face narrow; ears very far back.

No. 464. Head and neck preserved; short band disappearing under hair; three locks to ears and two behind descend from the parting; eyes long and rather narrow, horizontal; nose mutilated. This belongs to a class of heads differently shaped from the preceding, long and narrow throughout, with long nose, and generally a serious expression, akin rather to the "Samian type," as that of *Musées d'Athènes*, Pl. IX, on the Acropolis at Athens. The Cesnola Collection contains a number of this style.

No. 462. Head and neck preserved; hair not parted; red band sculptured; three locks to ears, but no others sculptured; eyes long, forward, flat and slightly oblique; ears very low, long and merely blocked out; long nose and pursed mouth, with protruding chin; general contour of face like No. 464, but longer.

No. 44. Statuette preserved to knees; playing on double pipe; row of small pendent curls sculptured round forehead; five locks on head, without parting; face much worn, and injured by fire.

No. 459. Head and neck only, with part of head broken away; rather fine, soft workmanship, with considerable attention to detail and evidences of advancement; locks arranged quite like the Naucratite example on the whole, but red band very short, and locks not cross-hatched, but carved into rectangles down back as well as on head; many evidences that all the hair was painted red; eyes more open and curve of upper lid pronounced; ears a little high, large and far back; nose large and strongly aquiline; slight smile within strong vertical lines at corners; chin narrow and somewhat retreating; whole shape of face from the front, with its breadth of brow and continual narrowing to the chin, of the same type as the Naucratite, and the head of Plate I, No. 5, of *Naucratis, Part I.* This contour is not shown in the *Atlas*.

No. 10. Statue holding branch, preserved nearly to knees; row of short curls around brow, rising from it and curled at end; hair

not parted; two locks brought down vertically on each side of the friz before reaching the ear; two others behind these, with a mass not modeled, but cross-hatched where seen from the front below ears; eyebrows sculptured; eyes convex, forward and somewhat oblique; nose broken at end; mouth pursed, chin advanced.

No. 11. Statue preserved to knees; hair about brow brushed straight up; no parting; two ridges behind front hair and, as in No. 10, not passing behind ear; two others back of these modeled, and similar modeling in front of mass falling to shoulders; eyes narrow, long, convex, slightly oblique; prominent nose and chin; mouth horizontal, with red, pursed lips; Egyptising kilt with *uræi*.

No. 456. Head and neck preserved; small curls falling on brow; behind this an upright flat *taenia*, of the usual Greek type, passing over the locks and back behind the ears; hair parted into locks, two short ones not reaching the ears, seven others passing behind; these are worked with some care to represent a conventionally uneven surface; eyes somewhat narrow, and mouth of better shape, with trace of smile; the whole workmanship shows considerable advancement from the crude archaic.

No. 221. Head and neck preserved; short curls around brow; above these the round band to ears; hair parted into four locks, with mass spread out behind; round, short face of advanced type, with oblique eyes and mouth.

No. 463. Head and part of neck; short hair in front brushed straight up and divided into sections; two locks, descending from parting, end before reaching ears; three others modelled behind these; advanced type, though still archaic.

No. 202. Statuette, much worn; only red band modeled.

No. 54. Fine Egyptising head; band alone modeled.

As this style becomes conventionalized and the original tradition is lost, it is sometimes difficult to decide whether the first furrow is a lock or the band. In the last numbers, where the hair is thrown up in front, it seems to take the place of the band. Another conventionalism is frequent where the front locks end before reaching the ears, showing that the original intention—so clear in the Naucratite head, and in some of the Cypriote numbers, that these locks are to be carried back severally so as to fall upon the breast or join the mass behind—has been quite lost in

transmission. This is also seen at Naukratis itself in the head cited above, *Naukratis*, Part I, Pl. I, No. 5.

The Naukratite head has short curls painted in black on the brow about the roots of the hair below the band; this cannot be certainly proved in the Cypriote series, but it is possible that the red on Nos. 38 and 40 indicate this. Its plastic representation comes in our series in the more advanced period.

The extreme recession of the under lip, noticed above in the Naukratite head, does not occur in any of the Cypriote series, but in early vase paintings it is not uncommon; and in the paintings of a mummy-case of the Metropolitan Museum, called by Maspero "Casket of the Lady Taou Hor from Thebes, Persian Epoch," it is strikingly exemplified.

In the structure of the body, the closest Cypriote parallel to the Naukratite statuette that I have observed is that of a small statuette, No. 215, where the hair is arranged in locks, drawn down in all directions from the crown of the head, like some of the Egyptian wigs, and not lower than the shoulders. No band confined it, but it was painted black, and the eyes and brow also, together with two small dashes in front of the ear as if for locks. The body is naked to the kilt, which is of quasi Egyptian pattern, but its borders are painted with a sort of meander of red and black. As with the Naukratite statuette, the body shows no bone structure, but is carefully rounded and slim-waisted. The breasts are rather prominent, and the nipples carved with great care, as well as the navel. In these particulars, as in a slight indication of the boundary of the soft part of the stomach, the Cypriote statuette shows advance upon the Naukratite. The small of the back, the vertical hollow of the back and the hand brought forward on the breast, exhibit a far greater attempt at truthfulness to nature in bodily form than is commonly found in Cypriote sculpture of the archaic period, where effort toward real modeling is usually confined to the head.

In the study of the manifold art of Cyprus, it is generally by a comparison with foreign types, as in this series, that we may expect to trace the origins to their home.

Columbia College,
March, 1893.

A. C. MERRIAM.

A TABLET REFERRING TO DUES PAID TO THE
TEMPLE OF THE SUN AT SIPPARA.

1. ॥ ॥ ॥ ॥ ॥ ॥ ॥
2. ॥ ॥ ॥ ॥ ॥ ॥ ॥
3. ॥ ॥ ॥ ॥ ॥ ॥ ॥
4. ॥ ॥ ॥ ॥ ॥ ॥ ॥
5. ॥ ॥ ॥ ॥ ॥ ॥ ॥
6. ॥ ॥ ॥ ॥ ॥ ॥ ॥



This tablet is one of more than ordinary interest, for it seems to relate to the substitution of an offering of a certain kind of merchandize for the single head of cattle due, and has a drawing of the animal (a humped bull) on the back. The tablet is $1\frac{1}{8}$ in. high by $1\frac{1}{8}$ in. long, and was acquired by the Rev. Dr. W. Hayes Ward in Babylonia. The following is a transcription of the cuneiform text:—

1. Ḥamšet (D. P.) gi-la-du makkuru
2. ina lib-bi ešt-en ša alpu šu-nu-u
3. (D. P.) Itti- (D. P.) Šamaš-balatu a-na Ē-bar-ra
4. it-ta-din-nu.
5. Araḥ Tebēti, ūmu samnu, šattu [šišserit ?]
6. (D. P.) Nabū-na'īd, šar Bābili (D. S.)

Translation.

1. 5 skins, exchange (value)
2. for one humped ox
3. Itti-Šamaš-balatu to Ē-bara
4. has given.
5. Month Tebet, day 8th, year 16th,
6. Nabonidus, king of Babylon.

The word "giladu," which is preceded by the determinative for skin or leather, is the Heb. גִּלְעָד, the Arab. گلاد. "Makkuru" means, literally, "property," "goods."

"Ina libbi ešt-en ša alpu šunū" means, literally, "in the midst of one which is a humped ox." "Makkuru ina libbi" is apparently an idiomatic expression meaning "value for." The word "šunū," "hump," occurs in the black obelisk, in the dual form:—"gammalati ša šunāā séri-sina," "She-camels whose backs were two humps" (Layard's *Inscriptions*, pl. 98, Epigraphs I and III.).

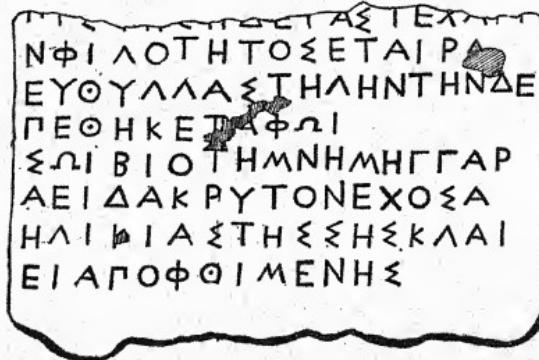
"Ē-bara" also read "Ē-babara") was the name of the well-known temple of the Sun at Sippara (Abu-habbah).

The date "16th year of Nabonidus" is equivalent to the year 539 B. C. The name of Babylon is written with the group "Tin-tir-ki," explained as "šubat balati," "seat of life," an old name of the Akkadian period.

THEO. G. PINCHES.

A SEPULCHRAL INSCRIPTION FROM ATHENS.

On the 4th of last January a dealer in antiquities in Athens brought me a fragment of Pentelic marble bearing a metrical sepulchral inscription. He said that it was found near the Hagia Trias church, *i. e.*, in the Ceramicus. The stone is smooth on the face and on the sides, rough on the back, and broken off in an irregular horizontal line on the top and bottom. The top fracture runs through the middle of the first line, leaving, however, a part of every letter, so that it is quite legible. Four letters in the other lines are slightly defaced, but not erased. The bottom fracture runs about .015 m. below the last line of the inscription. The stone is, in general, .06 m. thick, .15 m. high. At the bottom the width is .246 m., at the top .242; the width is the width originally given by the stone-dresser. It will be noticed that it tapers toward the top. There are no traces of color. I bought the stone, after convincing myself of its undoubted genuineness. I gave it lately to the National Museum at Athens.



This copy of the inscription is made directly from the stone, being traced through a paper impression and compared afterwards

with the original. In minuscules, in later spelling, and arranged with regard to its metrical form, it is as follows:

Πιστῆς ἡδείας τε χάρι | ν φιλότητος ἑταίρα |
 Εὐθυλλα στήλην τήνδ' ἐ| πέθηκε τάφῳ |
 σῷ Βιδτη μνήμην γάρ | ἀεὶ δακρυτὸν ἔχονσα |
 ἥλικας τῆς σῆς κλαῖ | εἰ ἀποθιμένης |

“Because of faithful and sweet friendship, thy companion Euthylla has placed this stone upon thy grave, Biote; for thy memory she forever cherishes with tears as she laments for thy perished youth.”

The inscription probably belongs to the early part of the fourth century B. C. It has been compared carefully with many inscriptions of the fifth and fourth centuries, public and private, in the National Museum and elsewhere in Athens.¹ It has been compared with all the accessible late fifth century inscriptions quoted by Köhler in his article, *Die attische Grabsteine des fünften Jahrhunderts;*² and in the forms of the letters and the arrangement of the whole it shows an advance upon those inscriptions. The characters, in general, are post-Euclidean. Γ and Λ appear instead of Α and Λ̄. Η is no longer the *spiritus asper*, but is η³. Ω is in use. There is no sign for the *spiritus asper*, as we see from ETAIPA. All the letters of the post-Euclidean alphabet are exhibited except ζ, ξ and ψ, which are not needed in this inscription. The forms for these letters in documents of the early fourth century are Ι, Ξ and Υ⁴. The arrangement is στοιχηδόν. Ο is used to denote ο and the pseudo-diphthong ον.

¹ A public document recording an act of the year B. C. 403. (*CIA*, IV, p. 166, 62^b) is in characters which closely resemble those of this epitaph. Lolling, who first published that inscription in the *Δελτον' Αρχαιογυκόν*, 1888, pp. 206–207, speaks of the characters as post-Euclidean, and notes their appearance in this document as peculiar. Kirchhoff, in *CIA*, I. c., says, *Indies enim erubescente illa aetate Ionicæ litteraræ usu facile potuit fieri, ut etiam non iussi populi decreto lapicidae pro arbitrio ea uti occiperent.*

² *Mitth. Athen.*, X. p. 359 ff.

³ Compare ΗΟΠΟΞ | ΚΡΕΝΕΞ, *CIA*, IV, p. 51, 499*; KÖHLER; *Mitth. Athen.*, II, p. 183. See MEISTERHANS, *Gram. d. att. Inschriften*, § 8, 6.

⁴ For Ι see *CIA*, II, 5; for Ξ, *CIA*, II, 3; for Υ, *CIA*, II, 2 and 5. These inscriptions are in the National Museum in Athens, and closely resemble this epitaph in lettering. Compare MEISTERHANS, § 8, 4.

These facts agree with an early date in the fourth century.⁵ It is true that the Ionic alphabet was used in Attic sepulchral inscriptions as early, at least, as the beginning of the Peloponnesian war, and this epitaph might therefore be of the fifth century; yet, in the absence of internal evidence to the contrary, inherent probability justifies us in assigning it to the early part of the fourth century.

The letters are well cut, being sharp and true in line, and, with a few exceptions, well shaped. Most of them are one cm. in height. Θ Ο Ω are a little less than that. The slanting strokes of K do not reach to a level with the ends of the hasta. The outside strokes of M are at an angle with the vertical, and the upper and lower strokes of Ξ are slanting. In N the angles are not on a level with the ends of the vertical strokes. Ω is rather clumsily made.

So far as the literary form of the inscription is concerned, we have a graceful and well-written epigram consisting of two elegiac distichs. The diction is poetical and the rhythm musical. I have noted a few features of versification, chiefly in the light of Professor Allen's article *On Greek Versification in Inscriptions* in Vol. IV of the Papers of the American School. Final α in Εἴθυνλλα is long by position before initial στ, no case of which is cited by Allen⁶; α in δακρυτόν is short before κρ.⁷ The elision of final ε in τήνδε is exhibited graphically.⁸ Final ν in μνήμην is assimilated by the influence of the following initial γ.⁹ There is a case of weak hiatus in κλαλει ἀποφθιμένης.¹⁰ Ἀποφθιμένης closing the inscription and an elegiac distich will be noted by all who are familiar with sepulchral epigrams as illustrating a favorite use of either ἀποφθίμενος or φθίμενος.

The name of the deceased, Βιθη, is one which is found occasionally in inscriptions, but not frequently. It is given by E.

⁵ REINACH, *Traité d'Épigraphie grecque*, pp. 296, 261; ROBERTS, *Greek Epigraphy*, I, p. 104.

⁶ ALLEN, as above, Papers, IV., pp. 79-99.

⁷ ALLEN, p. 81.

⁸ ALLEN, p. 141. Compare MEISTERHANS, § 23.

⁹ MEISTERHANS, § 41.

¹⁰ ALLEN, pp. 105-107; HADLEY-ALLEN, *Greek Grammar*; 75 D. e.

Curtius¹¹ as one of the rarer female names *delatus ex schedis meis et diurnis atticis*. It is found in two inscriptions, one possibly, and the other certainly, from Smyrna.¹² It occurs in at least nine inscriptions cited by Koumanoudes.¹³ In five instances the person thus named was from Heraclea, while the sixth¹⁴ came from Miletus, and the provenience of two¹⁵ is unknown. One only was from an Attic deme.¹⁶ To these may be added at least one in the *Corpus Inscr. Atticarum*,¹⁷ provenience unknown, not cited by Koumanoudes. The name also occurs, as it is well known, in the inscription discovered by Dr. Waldstein in Eretria something over a year ago.¹⁸ A masculine name, *Bíotos*, sometimes occurs. Pape¹⁹ cites several instances, one from an Attic deme.²⁰ In Koumanoudes it appears as the name of a Milesian.²¹

The name *Eúθυλλα* is found here, so far as I know, for the first time. I cannot discover it in Pape, or in any of the indices. The masculine *Eúθυλλος* occurs in a Delphian inscription.²²

The monument before us is a private grave-stone of the more modest class erected by a woman named Euthylla in honor of a young friend named Biote. That she was young we are justified in inferring from *ἡλικίας ἀποφθιμένης*. The word *étaipra* is used

¹¹ CURTIUS, *Inscriptiones Atticae duodecim*, ix.

¹² CIG, II, 8148, 8227.

¹³ Κουμανούδης, 'ΑΤΤΙΚΗΣ ἐπιγραφαὶ ἐπιτύμβιαι, 918, 1706, 1707, 1708, 1709, 1710, 2077, 2691, 2692.

¹⁴ Κουμανούδης, 2077.

¹⁵ Κουμανούδης, 2691, 2692.

¹⁶ Κουμανούδης, 918: *Biote | Ktētou | "Oηθεν | γυνή*. See also CURTIUS, as cited in Note 11.

¹⁷ CIA, II, 3553.

¹⁸ [BIOTH] [API]ΣΤΟΤΕΛΟΥ. See Professor RICHARDSON's report, *Am. Jour. of Archaeology*, Vol. vii., p. 246, and Dr. WALDSTEIN in *Nineteenth Century* for 1891, p. 848. I copy the inscription from a paper impression which I made in Eretria on April 8, 1892. The stone is entire, but corroded on the surface on the left side.

¹⁹ PAPE, *Griechische Eigennamen*, s. v. *Bíotros*.

²⁰ "Oη. Compare Note 16 above.

²¹ Κουμανούδης, 2078.

²² WESCHER and FOUCART, *Inscriptions recueillies à Delphes*, 403, line 8.

here simply to designate an intimate friend and companion, in the same earlier and nobler sense in which it was used by Sappho:

Τάδε νῦν ἔταιραις

ταῖς ἔμαισι τέρπνα καλῶς ἀείσω (Fr. 11) and
Ἄδητος καὶ Νιόβα μᾶλλα μὲν φίλαι ησαν ἔταιραι (Fr. 31)

These fragments are both from Athenaeus, who discusses the earlier and later meanings of the word.²³ The word *ἔταιρος* is used in the same sense in the following sepulchral inscription:

'Ανθεμίδας τόδε σῆμα · κύκλῳ στεφανοῦσιν ἔταιροι
μνημείων ἀρετῆς οὖνεκα καὶ φιλίας
'Ανθεμίς

Ἡροφίλη²⁴

In this case also we have a stone erected either by various friends of Anthemis or by Herophile, one of these friends. A similar instance is perhaps to be found in the inscription:

Οἰνάνθη.

Ἀρισταγόρα²⁵

Several instances of stones erected by friends of the deceased are given by Kaibel.²⁶

I have characterized the stone as one of the more modest class. It may be interesting to inquire what its form may have been. It was not a large stone, as we see from the dimensions of the fragment. It diminished in width slightly as it rose. It was surmounted, perhaps, by a gable-shaped top like a pediment, or by an anthemion painted or carved. This gable or anthemion would be connected by a moulding with the tablet below. Just under the moulding may have been the short inscription of possibly three lines, giving Biote's name in the nominative, her father's

²³ *Deipn. XIII.*, 571. Compare MAHAFFY, *Social Life in Greece*, Chap. IX, p. 284. The fragments are given by BERGK, *Poetae Lyrici Graeci*, under the numbers 11 and 31, but he reads *καλῶς* and *ἔταιραι*. I have followed the common reading in these words.

²⁴ *CIA*, IV., p. 114, No. 491^a. Compare KAIBEL, *Epigr. Gr.*, No. 73; *Mitth Athen.*, X, p. 363 (Köhler); *Kouμανούδης*, 2961.

²⁵ *CIA*, II³, p. 323, No. 4044. Very meagre details are given of this inscription.

²⁶ *Epigr. Gr.*, Nos. 488, 619 (from Rome). Possibly we have a similar case in 484, the monument of Kitylos and Dermys.

name in the genitive, her *ethnikon*, if she was a foreigner, her *demotikon*, if she was an Athenian. Or some inscription like Βιότη ---ον, χρηστέ, χαῖρε may have been placed here. Immediately below may have been painted or carved in low relief some scene in which the friends Biote and Euthylla were grouped as they sometimes had been in life. The reserve of the period of art to which the stone belongs would give us a simple group. We might have Biote sitting, with Euthylla standing before her, clasping her hand, exhibiting the δεξιωσις as a sign of the affection expressed in words in the epitaph. The epitaph would come below the picture or the relief. If there were no work of the pencil or chisel, the epitaph would follow the first inscription with an interval which might be decorated with rosettes or left plain.²⁷

It is fruitless, perhaps, to make any inquiry as to who the persons were whose names appear on this stone. But, after observing the facts noted above, I am tempted to make one or two suggestions. It is an extraordinary thing that the stone was erected by a friend, not by a member of the family of the deceased. From this fact, it would seem to be possible that the dead Biote was not an Athenian, and perhaps that she was from some rather distant region, living in Athens without her family. We have noted that the name is found chiefly among foreigners. Possibly Biote was a slave, one superior in charms of person, mind and heart. The use of *ērāpos* for a fellow-slave is as old as Homer.²⁸ This stone is evidently one of the humbler sort, though vying with any in the simplicity and sweetness of its sentiment, and in the exquisite form of its expression. We have noted that the name Biote is found oftener from Heraclea than from any other place, and it is well known that in the fifth and fourth centuries there were many

²⁷ Compare tablet No. 856 in the National Museum at Athens, given in *CIA*, II³, pp. 216-217, No. 2724; also No. 86, of an earlier period, given in *CIA*, IV., p. 113, No. 477, k. See STACKELBERG'S *Gräber der Hellenen*, Plates III-VI; PERVANOLU, *Grabsteine der alten Griechen*; BAUMEISTER, *Denkmäler*, I. s. v. *Gräber* (Julius), FRIEDERICH-S-WOLTERS, *Bausteine d. gr. Plastik*, pp. 326-328, with literature there cited.

²⁸ *Odyssey*, XIV. 407, 418; XV. 307. Somewhat reluctantly we may find it not to be impossible that Biote was an *ērāpa* in the later special sense of the word, though the word as used in the epitaph has not that meaning. We must remember that this class of persons included Aspasia.

slaves in Athens, and that they came largely from foreign lands, including the various countries on the Pontus.²⁰

Perhaps I have written more fully of this simple stone than its content will seem to warrant, but it has interested me greatly. Few inscriptions tell so much in so little space, in so good a form. But apart from this, apart from the one new name Euthylla that we meet here, apart from the epigraphical, metrical and grammatical facts illustrated, apart from the suggestions as to reconstruction of the monument, and as to the persons whose names here appear, we are justified in lingering for a few moments over this humble tribute to human grief and human love. For these are peculiar neither to us nor to ancient Athens. These give us fellowship with all ages and with all men. The little stone fell and was buried for centuries. The love that created it lives on forever. 'H ἀγάπη οὐδέποτε πέπτει.'

WILLIAM CAREY POLAND.

American School of Classical Studies,
Athens, 2 June, 1892.

²⁰ GILBERT, *Gr. Staatsalterthümer*, I, p. 163, who cites Ctesicles as quoted by Athenaeus, vi., 272, b. There were 400,000 slaves in Attica in b. c. 408. See also BÜCHSENSCHÜTZ, *Besitz und Erwerb*, I, Chap. 8, and particularly pp. 118-119. Of course, as several places bore the name of Heraclea, it would be unfair to assume that every Βάρη Ἡρακλεών came from Heraclea on the Pontus. See *Collection of Greek Inscriptions of the British Museum*, Part I, p. 149, No. 100 (Hicks's note.)

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
STUDIES AT ATHENS.

SOME SCULPTURES FROM THE ARGIVE HERAEUM.

[PLATES IX, X, XI.]

These Plates are from photographs taken from the casts by Dr. C. H. Young, and the account of them is made up of extracts from "*Excavations at the Heraion of Argos, 1892*, by CHARLES WALDSTEIN: American School of Classical Studies at Athens, Bulletin III. Boston, New York and Chicago, Ginn & Co. London and Edinburgh, Williams & Norgate, 1892;" pp. 1-20, Plates I-VIII.

The circumstances of the discovery of the important sculptures on the site of the Heraeum in the spring of 1892 have been noticed in the JOURNAL, Vol. VII, pp. 518-520, and in Mr. Brownson's paper in this number.

1. HEAD OF HERA (Plate IX). "Parian marble. The head was evidently placed between the shoulders, at right angles to the chest. There is no trace in the neck of a turn to the right or left, nor of a droop downwards or a tilting upwards. This absolute straightness of position of the head, and hence of the look of the eyes, gives to a statue a solemnity, simplicity and severity which in the archaic statues, with the imperfect and conventional modelling of the details, contributes to the impression of hardness and lifelessness characterizing these early works. In our work it could only give simplicity, dignity and solemnity. In the composition of the head itself there is a symmetry maintained in either half, a perfect balancing of either side. This severe dichotomy is accentuated in the peculiar treatment of the two curls above the central parting, a peculiarity to which I shall have to return. From this point downwards the two sides of the face are evenly balanced, without suggesting a purely mechanical reproduction, as in some of the archaic works."

"In contradistinction to archaic work the severity and regularity of treatment [in the hair] is not hard; but the regularity lends to the variety of wavy lines a repose which gives to this style of treatment something of the grandiose as opposed to the petty. The more this hair is looked at from a distance, the more life and beauty of texture does it suggest, while retaining a harmony and regularity of general design, and adding restfulness to the suggestion of flow and ripple in the movement of lines. I hardly know of any instance of Greek art that can be compared with it, excepting the best types of Greek fifth century work, as in what remains of the Parthenon and the hair in the Caryatides of the Erechtheum—though these, more decorative works of sculpture, are less highly finished.

"In the same way the regularity which makes for hardness is counteracted in the detail modelling of the face. In the profile view the absolutely straight and continuous line from forehead to nose is varied in that the nose projects at a slightly obtuse angle and thus throws the lower part of the face forward. But an element of softness is chiefly added in the delicate modelling (always, however, remaining simple and broad in character) of the cheeks, chin, mouth and eyes. The modelling of the cheek, especially in the region about the mouth, nostrils and eye, is of a delicacy which, while adding to the general softness of the face, is not noticeable in itself, unless examined very closely and minutely, and does not detract from the general breadth of character in the treatment of the head as a whole. The chin holds a happy mean between the heavy and the weakly pointed; while the curve from the lower lip downwards to the point of the chin is one of peculiar delicacy. The mouth, with a full lower lip, is a very characteristic feature of the head. The lips are clearly arched and still have nothing of the hardness of arching which the lips of the works immediately preceding the great period have, still less are they set in the so-called 'archaic smile.' The hardness is chiefly in that the lips are not compressed, so as to close the mouth firmly, but are slightly parted—a fact which no doubt adds to the milder expression of the whole countenance. The sculptor has thus solved a difficult problem.... The whole treatment of the eye retains a severity which is free from lifelessness and give a vividness which

is not tied to a purely individual expression or mood. Mouth and eye together remind us of the advance in art attributed by the ancients to the painter Polygnotos. . . .

"In all its characteristics this head thus manifests that it is neither archaic, nor transitional, nor of the fourth century B. C., nor archaic or belonging to later renaissance of earlier Greek type, but it is clearly the work of an artist living in the fifth century B. C.

"The next question is the particular divinity represented. I have until now called it Hera. But of course we must be aware that this attribution is not beyond all doubt. It might be maintained that the head is that of Athene or even of Aphrodite. But I do not think this likely. It first appears to me to be a head of Hera because of the diadem or stephanos which is the characteristic badge of Hera. It is true that this is not the broad, ornamented diadem which Hera has on the coins of Argos. She is not represented as a matron. But we must remember that Hera in the Judgment of Paris vied with Aphrodite and Athene, and that, especially at Argos in the festival of the *lepos γάμος* she is conceived of as the bride of Zeus, the marriage festival with whom is the central point in the festival. The place in which the head was found, would, furthermore, be an *a priori* reason for our attribution. While, finally, the severity of conception to which reference has already been made modifies the youthfulness in the direction not favorable to its interpretation as Aphrodite or even Athene. This view is still more confirmed when we compare the head with the best known types of Hera. . . .

"If now we turn to the question to what artist and school this head belongs, the name of Polykleitos and the Polykleitan school at once necessarily suggest themselves. The date of the work and its provenience would, without any other indications, make us attribute it to the Argive school under the immediate influence of Polykleitos. For it is, to say the least, very improbable that in the fifth century such a statue of Hera would be made for the Heraion without coming under the direct influence of Polykleitos who established the ideal of this goddess in this very temple by what was one of the most famous works of art in antiquity. The severity and prevalence of symmetry in the head, of which I have

spoken, are characteristics which mark Polykleitan character; while the comparative youthfulness and dignity, kept from overpowering grandeur by a certain grace, could not be expressed better than in the terms with which Quintilian (*Inst. Orat. XII. lo. 7*) criticises the art of Polykleitos. . . .

"As to the question of how the statue stood, I was at first inclined to believe that it must have stood alone on its base, probably immediately at the west end of the temple. The beautiful delicate finish of the surface made me doubt of its being a pedimental figure. But since the metope was found (Plate X) in which the surface is so well preserved, the careful finish and elaboration of the surface in this piece of architectural sculpture makes me consider it possible that this Hera stood in the pediment under which it was found, and represented the goddess standing immediately beside the central figure or figures in the scene of the departure of Agamemnon and the Homeric heroes for Troy. The dimensions would suit the pediments of a temple with the measurements of the Heraion. . . .

2. METOPE FROM THE SECOND TEMPLE (Plate X). "Fine-grained marble. . . . This fragment of a metope, of which the surface is in excellent preservation, represents the torso of a nude warrior advancing to the left in violent charging attitude; the right arm, which is upraised, no doubt held some weapon with which he was striking an opponent who lay at his feet, and whose hand is still to be seen pressing against the right side of his victorious enemy. The work is in high relief, the head and legs are now missing, having been completely undercut. The flat background of the relief is visible in our plate above his left shoulder. The action of this warrior is one which occurs frequently on metopes and friezes representing the famous mythical battle scenes. . . . The vigorous action is expressed as fully in this work as in any of the instances quoted. But I know of no metopes in which the detail work in the modelling of the surface is so careful and accurate. Not only in the wonderful articulation of the whole torso and in the delicate modelling of the muscles covering the ribs, in which we have the 'dryness' reminding us of the school of Ægina without any of the archaic 'hardness'; but in such details as the indication of the gland (?) in the inguinal region, and the

careful modelling of the hand, in which the thumb, the nails and the small wrinkles, are reproduced in an almost minute manner—in all this we have an instance of a new school of art. It seems to show a continuation of Peloponnesian traditions, of the *duriora et Tuscanicis proxima* rendering of the human figure in transitional works; while, at the same time, there is a knowledge and power of accurate expression in the treatment of details, which together form a striking combination. . . .

3. HEAD OF AMAZON (?) (Plate XI, Fig. 1). “This head at first sight appears so expressive of sentiment that we should hesitate to connect it with the other works which we assign to the Polykleitan school of the fifth century. But upon closer examination we see that the sentiment which it manifests is due rather to the attitude than to the signs of emotion in the head itself. There is no doubt that it formed part of a high relief on the (our) right side, which is not fully visible in the plate, being near to the background; the hair is not elaborated, the ear not indicated. From its dimensions, too, there can be no doubt that it formed part of a metope. The head drooped to the shoulder and no doubt belonged to a wounded warrior. The helmet is of a curious Phrygian shape. It might possibly belong to a Trojan warrior, a type which often approaches the effeminate, but the head corresponds most to the types of Amazons which abound in Greek art. If the head be that of an Amazon and if it belongs to the metopes of the temple, the Amazonomachia (and probably the Centauro-machia) were represented on the north and south sides. . . .

4. HEAD WITH HELMET (Plate XI, Fig. 2). “The eyes seem to show traces of the ancient application of color. The dimensions are slightly larger than those of the previous head. So, too, the proportions of the face. The face is rounder and fuller. I do not venture to ascribe it to the metopes; though it certainly formed part of a work in high relief. . . .

5. FRAGMENT OF SIMA (Plate XI, Fig. 3). . . . “The . . . distinction between the works of the fifth and fourth centuries B. C. is noticed when we compare the *Sima* from Argos with that of the *Tholos* of Epidavros. The ornament upon the Argos *Sima* consists of two volutes joining, out of the junctions of which rises an anthemion in modified lotos pattern. The volutes end on either

side in the honey-suckle pattern, below which one smaller curved line sweeps inwards and ends in a smaller volute beside the anthemion. Each smaller volute is surmounted by a bird. One would be glad to see in these birds the cuckoo closely associated with the worship of the Argive Hera; but this I do not venture to decide. Compared with this, the Epidaurian sima is redundant and almost *barocco*."

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
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EXCAVATIONS AT THE HERÆUM OF ARGOS.

[PLATE XII.]

The so-called Heræum of Argos is situated at some distance from the site of ancient and modern Argos, just as, for example, the Æginetan temple of Athena was six or eight miles from the ancient city of Ægina, and as the Phigaleans built their temple to Apollo still further away from their town. Although the Heræum was an Argive temple during almost the whole time of Greek history, it doubtless belonged originally not to Argos but to Mycenæ. As Argos increased and Mycenæ decreased in strength, the sanctuary became the common possession and charge of both cities. Finally, with the capture of Mycenæ in 468 b. c.¹, it fell into the hands of the Argives alone. The temple stood upon a southern spur of the low mountain Enbœa, which itself is a sort of foothill, sloping away toward the south, of the higher mountain Tretus, now Zara, one of the two elevations between which Mycenæ lies. The sacred way to Mycenæ led around Zara, keeping well up on the mountainside. The distance according to Pausanias² is fifteen stades.³ By the present road it is considerably more, perhaps a walk of an hour and a half. The difference is due to the fact that the route now lies through the plain along the foot of Zara, for the beds of the mountain torrents make the higher road impracticable. We noticed the ruins of an ancient bridge which had served to span one of these torrent-beds, and in general the course of the road can be well enough made out. Argos, on the other hand, lies across the plain from the Heræum,

¹ DIODORUS, XI. 65.

² PAUS., II. 17.1.

³ STRABO, VIII. 6.2.

exactly three times as far away as Mycenæ according to Herodotus,⁴ who makes the distance forty-five stades.⁵ The evidence, therefore, of its location seems to show clearly the original connection of the temple with Mycenæ, not with Argos.

The site⁶ is a double terrace, bounded on two sides by the streams Eleutherium (to the northwest) and Asterion (to the southeast). Pausanias says that the former (the Eleutherium) flows *κατὰ τὴν ὁδόν*, along or possibly across the way as one comes from Mycenæ, and that it was used by the priestesses for purposes of purification. The second (the Asterion) was, he says, according to legend the father of Eubœa, Prosymna, and Acræa; therefore the hill opposite the Heraeum was called Acræa, the region about the temple Eubœa, and that below the temple Prosymna. To-day Prosymna is made the name of a demarchy including several villages to the southeast of the Heraeum. Eubœa, as I have said, seems to be the name of the whole mountain, and Acræa is easily recognizable in a hill to the east across the Asterion. Both the Eleutherium and the Asterion, streams that flow down from Eubœa, were quite dry during the whole time we were working, but when Mr. Fox and I revisited the scene two weeks later we found that the Eleutherium had been swollen to a torrent by recent rains.

According to Thucydides,⁷ the temple of Hera at Argos was destroyed by fire in 423 B. C. This was the prehistoric Heraeum,

⁴ HEROD., I. 81. ⁵ Strabo's estimate (*loc. cit.*) is ten stades.

⁶ It was discovered more than fifty years ago by General Gordon (cf. MURE, *Journal of a Tour in Greece*, II. p. 177). His tentative excavations brought to light various sculptured fragments as well as terracotta and bronzes. In 1854 the work was taken up and prosecuted with greater thoroughness by Bursian and Rangabé, who confined themselves, however, to the site of the new temple (*cf. infra*). Its foundations were partially uncovered and several points with regard to the architecture and plan of the temple established; on the other hand, the excavations were rewarded by the discovery of many valuable works of art, heads, torsos and smaller fragments. These were deposited in Argos and have only recently begun to receive the study which they deserve. (See BURSLAN's report in the *Bullettino*, 1854, II. p. XIII, sq., and RANGABÉ's *Ausgrabung beim Tempel der Hera unweit Argos*; rough plans of the site are also to be found in MURE, *loc. cit.*, BURSLAN'S *Geographie von Griechenland*, Vol. II, Taf. I. n. 3, and CURTIUS' *Peloponnesos*, Vol. II, Taf. XVI). When we first visited the site no trace was left of the work which our predecessors had done.

⁷ THUCYD., IV, 138.

where according to later legend⁸ the chiefs chose Agamemnon to be the leader of the Trojan Expedition and whose priestess was Cydippe when, according to the story that Solon tells Crœsus,⁹ her sons Cleobis and Biton drew her car from Argos to the temple and were rewarded by the best gift the goddess could give to men, that is, death. The later Heræum, which rose out of, but, according to Greek custom, alongside of the ashes of the burned temple, was built, as Pausanias says, by Eupolemus of Argos; the cult-statue of gold and ivory was the work of Polycletus. Here, therefore, we are dealing with the best period in Greek art and architecture.

With the help of these references from Thucydides and Pausanias and from further topographical allusions in the latter's story, it had been possible long ago to determine the probable sites of both temples mentioned. It will be proper, therefore, at this point to describe the whole precinct more in detail before beginning an account of the work done. The upper terrace (A on the PLAN) on which evidently the older temple once stood, is a nearly level plateau more than fifty metres in length (east to west), and almost equally wide. On the south side, toward the plain, and in part at the ends, it is bounded by a retaining-wall¹⁰ (V on the plan) of huge, irregularly shaped stones, such a wall as we found nowhere else, and surely one of very great antiquity. Below this wall, at the ends of the plateau, the ground slopes gradually to the ravines or river-beds, which, as I have already said, enclose the whole site. Below the large side-wall there is a slight slope down to the new temple-terrace, 12 m. lower, a plateau (B on the PLAN) of about the same extent as the upper one. This terrace has no retaining-wall on the south side, toward the plain, but slopes away rather steeply in that direction. Toward the east the

⁸ DICTYS CRET., I, 16.

⁹ HEROD., loc. cit.

¹⁰ I can best refer here to the complicated system of retaining-walls made necessary by the hilly character of the site. All these are shown on the PLAN (W. X. Y. Z.) though we do not fully understand or attempt to explain the meaning and purpose of every wall. Excavation is necessary to determine the original slope of the hill at many points, and we were not able to undertake work of this kind. I should say that the line T T T on the PLAN indicates only approximately the position of a wall east of the old temple-terrace. An intervening knoll prevented us from taking exact observations with the instruments at hand.

descent is almost precipitous, and high retaining-walls were necessary. These walls are but a short distance from the temple, so that the space of the temenos before the east front was very limited. Toward the west, on the other hand, there is a large graduated incline down to a third plateau, considerably the largest of all, bounded on the west by the stream Eleutherium. (Included on the PLAN between CC and J).

Perhaps it is pertinent to add a word on the natural beauty of the site, high up as it is on the mountain side, and on the view that it offers. Almost the entire plain of Argos, the mountains which surround it, and the bay of Nauplia to the south, are included. Historical associations which recall every period of Greek history lend an added charm to the scene. Tiryns and Argos, representing respectively prehistoric and classical times, the mediæval castle which crowns the Larisa or citadel of Argos, the walls and towers of Nauplia, with the reminiscences which they contain of Venetian and Turkish supremacy, of the establishment of the republic under Kapodistrias, and, finally, of the monarchy under Otho—all are distinctly visible.

The first campaign at the Heraeum may be said to have begun February 13, 1892. On that day our expedition set out from Athens—Dr. Waldstein, Mr. Fox, the architect and draughtsman of the party, and I, together with a Greek foreman who had had two years of training with us at Eretria, and our cook and man of all work, Nicolaki. Upon our arrival at Argos we called upon the two prominent men of the town, the demarch and the physician, to enlist their support. In company with them we drove over the plain to Chonika, a village thirty-five minutes from the temple, where the demarch assisted us in engaging the best house to be found, the only one of more than a single story. The next day, Sunday, we were joined by two more members of the School, Messrs. Newhall and De Cou. The day was spent quietly in receiving callers and through them allowing the news of our coming and our mission to be spread about the village and the surrounding country. Monday morning rather more than sixty workmen presented themselves. By the time the next week began more than one hundred and ninety men were on our lists.

Work was begun simultaneously on all three plateaus which I have mentioned, and at two more points which seemed to promise well. I shall follow nearly the reverse order in description, though I will say at the beginning that far the greater part of our time and labor was devoted to the new temple. The site was so large and the amount of work to be done so great, that in one campaign we could only make a beginning. Dr. Waldstein's purpose, therefore, was to concentrate our energies at the Polyclitan temple. During the first four weeks, that is, the time when Mr. Newhall and Mr. De Cou were on the ground, we worked at four separate points with as many distinct gangs, each under the charge of a member of the school. Afterward, when Mr. Fox and I were left alone, we restricted ourselves altogether to the new temple. That therefore is now fully cleared. At other points which we explored ruins were discovered, as Dr. Waldstein puts it, without being in all cases fully uncovered.

I speak first of the lowest plateau, the one to the west of the temple. We began here by sinking two trial trenches, one in a direction from east to west, the other diagonally across the plateau. The second of these trenches discovered nothing of importance. The first, however, toward the west side of the plateau, crossed the poros foundations of a substantial wall, measuring from .95 m. to 1.05 m. in breadth.¹¹ We uncovered this in its whole length, a distance of 69.60 m. in an approximately north and south direction. The wall was in a ruinous state, interrupted at two points for some distance and altogether battered and irregular. We had evidently found only the lowest part of the foundation. At the north end was discovered a small statue-base of white limestone, made up of two members and resting upon a foundation of small stones. The base bore no inscription and no fragment of marble was found in the neighborhood.

This wall proved to be parallel with the north and south retaining-wall of the terrace, the two being 8.10 m. apart. It thus seemed probable that we had uncovered the remains of a long stoa such as frequently bordered a temple-precinct. Accordingly trial pits were sunk on a line midway between the two walls. We

¹¹ This wall is indicated on the maps of Bursian and Curtius already referred to (*cf. supra*), but no trace of it remained visible at the time when our work began.

found, as we had hoped, a series of bases at approximately regular intervals of about 3 m. These bases were made of the same poros stone, and were as much the worse for time and wear as the wall first laid bare. Thus the interpretation of the remains became certain. Evidently here had been a stoa with a double row of columns and a rear wall like the stoa of Eumenes in Athens (CC on the PLAN). No part of the superstructure was found or any architectural fragment to give a clue to the style of the building: but further excavation may shed light upon this point. The end wall of the stoa to the south, which, like that to the west, was also a retaining-wall, was very well preserved. The stonework here was remarkably fine, formed of well finished quadrangular blocks, some measuring as much as 4 m. in length, and the whole set off by a projecting string-course, still more carefully wrought. There seemed no doubt, therefore, that the structure belonged to a very good period, that is, it may have been built at the same time as the later temple. A great many small objects were discovered during our work here, as everywhere. Close by the long wall was a long spear head, very much corroded but easily recognizable; also various fragments of bronze, among them a long rod which was perhaps a spit, and a very interesting little horse, having the same thin body and long legs as those on the so-called Dipylon vases; several valuable fragments of pottery—one, a part of a large vase, representing in relief two lions with the same features as on Corinthian ware and in the same affronted position, another very similar, except that in color it was brown on a yellow ground, instead of in relief; further, a small terracotta head, several bronze mirrors, and one piece of black-figured pottery. In general I may say here that we found very little of the black-figured ware. At one point east of the temple several pieces came to light, but elsewhere little; and no single fragment of red-figured pottery was found. It was this of course that made everything we discovered so valuable—the fact that all belonged to so early a time.

At the upper, *i. e.*, eastern, side of this plateau was what seemed like a cistern of cross shape (*J* on the plan) nearly filled with accumulated earth. In clearing this out we found only unimportant objects, several fragments of pebble mosaic, for example, and a piece of cornice in poros with several guttae. The cistern itself

was a deep subterranean basin cut in the solid rock and open only at the cross. It extends into the hillside, so has really but three arms, the two that are opposite each other being considerably shorter than the third, which is 4.50 m. in length, while one of the others is 2.60 m. and the second 3.20 m. long. All measure 1.10 m. to 1.30 m. in width, and are high enough to admit of easy passage, the pavement sloping from each extremity to the cross where it drops abruptly to a deeper basin. The roof is arched, and sides and roof are coated with cement.

Another curious discovery was made close by, to the south (K on the plan). We had thought that here, along the same hillside, might be another similar cistern. Instead we came upon something which may be described as the half of a huge shallow bowl, assuming* that it is a vertical plane which divides the bowl into halves. This was hollowed out of a single stone, and at the lower side was a stone gutter to carry off water. An iron strigil was found in the immediate neighborhood. We felt safe, therefore, in interpreting the discovery as a bath or cleaning-place of some kind.

Toward the northern side of this same plateau were the ruins of a small Byzantine church, 10.50 m. by 3.20 m. (L on the plan). Excavation here revealed very little. The walls were badly made of small irregular stones. A few pieces of squared marble were found. It seemed likely that old materials had been used in building the church, but the site was not that of a Greek structure.

One of the most interesting parts of our work was at a point outside the temple-precinct, on the further side of the Eleutherium, and some distance below the stoa mentioned. Here we noticed a shaft .97 m. by .63 m. sunk in the solid rock, but filled with earth to within a short distance of the top. One of the party suggested that this resembled very much the entrance to an Egyptian tomb-chamber. We dug with some difficulty to a depth of 4.40 m., finding on either side of the shaft shallow holes cut in the rock to make a means of ascent and descent. Reaching the bottom we found three avenues all cut in the solid rock, leading, one toward the plain and town of Argos, the second back toward the temple, the third at right angles to the direction of the

other two, or about southeast. The second and third soon led out of the rock back to the Eleutherium, a little below the present level of its bed. We did not follow the third in its further course: the second, however, not only crossed the stream but entered the rock on the eastern side, the side toward the temple.¹² Through a distance, therefore, of 13.70 m. walls and roof of hewn stone were necessary. How much further the passage continues as a rock-cut tunnel we could not tell. The first mentioned avenue we followed for a distance of 34.25 m., all the way through native rock. It was a fascinating piece of work to the men engaged in it, as well as to ourselves. They were utterly mystified, fancying that they were on the way toward finding some hidden treasure. They would ask us repeatedly *τι πρᾶγμα εἶναι ἔδω;* and we were by no means sure what to tell them. Of course the passage was so dark that they were compelled to use artificial light, and they were overjoyed to find niches in the side walls at short intervals, which doubtless those who made the tunnel had hewn for just that purpose.¹³ In this way we were able to work with both day-and night-gangs, and to push forward very much further in the time we had at our disposal. To clear the passage through its entire length may be a long task, for of course we can only conjecture how far it extends, and the work must be carried on under continually increasing disadvantages. It was probably connected with a system of irrigation for the plain—*πολυδίψιον Ἀργος.* Argos is still *πολυδίψιον*; and the most notable, for Greece unusual, feature of the plain is the great number of windmills scattered all over it, used for pumping water into irrigating-canals. It seems doubtful whether or not this aqueduct was fed by the Eleutherium. As has been stated, it was found to cross its bed, but perhaps the stream's course may have suffered some change. The third arm was, in that case, probably designed to carry off the overflow. On the other hand, the passage may have been connected with a series of cisterns situated across the Eleutherium and a little further up. There were five of these, hewn out of a considerable cliff. We cleared one of the number, but found nothing whatever. In the aqueduct itself nothing was found.

¹² See CURTIUS, *loc. cit.*, p. 899.

¹³ Cf. the Samian tunnel of Polycrates, *Mith. Athen.*, ix, s. 177.

I come next to the uppermost terrace, on which, as Pausanias says distinctly, the old temple stood. His words are:¹⁴ "Εστι δὲ ὑπὲρ τὸν ναὸν τοῦτον τοῦ προτέρου ναοῦ θεμέλιά τε καὶ εἰ δή πι ἄλλο ὑπελίπετο ἡ φλόξ. We first dug a broad trench running from the eastern end of the terrace in a direction due west. We did not go very far or very deep before discoveries began. On the first day squared fragments of poros stone appeared, and on the second, at a distance of 8 m. inside the east terrace-wall and .60 m. below the surface, we came upon a hard layer of black earth, assuring us that we were on the site of the burned temple. Not only that, but various pieces of charred wood were found, and flat bricks showing plainly the action of fire. Digging further on we found that this layer of black earth continued. It made, in fact, what we came to call a "platform," with a nearly uniform width of rather less than 4 m. and a length of 33 m., i. e., reaching nearly to the western end of the terrace. This peculiar layer was from one to two inches in thickness, and itself rested upon a layer of dark red soil. Virgin soil on either side of the platform lay only about a foot below its level. At various points fragments of metal and pottery were found; the metal, iron or bronze, always too much melted and corroded to be valuable, the pottery for the most part entirely plain, though some of it showed very archaic Mycenaean patterns. One find was of two very large pots, one within the other. A second, near the western end of the terrace, revealed a perfect pocket from which we gathered three basketfuls of fragments, in the main pieces of thick, heavy, unpainted pottery, also some fragments of a lighter ware, and bits of iron melted by fire, plates and rods of bronze, glass beads, smaller beads of bone, and, last of all, a very curious bronze goat. The whole was probably a mass of debris which had fallen at the time of the burning of the temple, or had been thrown aside as rubbish. Beyond the west end of the platform and a foot below its level was a pavement of irregular polygonal slabs, such a pavement as might naturally have surrounded a temple.

We next started a cross-trench, running from the south retaining-wall of the terrace back to the hill at its rear. To the north

¹⁴ PAUS., II, 17.7.

of the main trench virgin soil was reached at a very slight depth, and no discovery was made; to the south we crossed a second "platform" of black earth measuring almost exactly the same in width as the first, and running parallel with it at a distance of seven metres. Virgin soil was found between the two at the same slight depth as before. Lastly, on the south side of this platform and extending to the terrace-wall, a distance of 9.30 m. was a polygonal pavement of the same type as was found at the west end. Here the work rested. The excavations are yet too incomplete to show all that is desired, but they have, at least, made out very nearly the precise location of the old temple; that is, we can explain these "platforms" of black earth in no other way than by supposing that they mark the lines of the temple's side walls. Possibly the red layer beneath is what is left of the brick walls of the structure. Dr. Dörpfeld explains in this way a large deposit of the same sort found along the walls of the Heraeum at Olympia. That temple, as the oldest known, makes the best standard of comparison with ours at Argos, both belonging to a time when walls were built of sun-dried brick, while columns and superstructure were of wood.

Interesting remains were discovered on the slope west of the old temple. A trial trench has revealed at a slight depth a smooth level pavement of concrete (M on the PLAN). This pavement proved to cover a rectangular area 13.20 m. by 4.43 m., the direction of its length being approximately north and south, that is, along the slope. A slight ridge borders the lower long side. On the opposite side and at both ends the area is enclosed by walls of the same concrete as the pavement. The end walls slope with the incline of the hill, which seems to show that they were only retaining-walls and never rose high enough to carry a roof. Toward its southern end the pavement was pierced by a round hole .20 m. in diameter, while close to the wall at the opposite end two large flat bricks were found lying together on the pavement. The whole structure, if it may be called by that name, perhaps served as a reservoir or lavatory. It may be added that during the work here we found several flat bricks which bore on one face the impress of a thumb and four fingers. The brick had evidently been carried while still soft on the upturned hand of a workman.

I come at length to the new temple and its immediate surroundings. Its location was known to us approximately, and we were fortunate in finding upon the very first day the broad courses of the outer foundation. Work was begun at the eastern end, and at the same time a broad trench was carried up the southern slope toward the temple. I need not describe in detail the progress of this part of the work, which, as I have noted, was by far the largest and most important part. We followed the foundation-walls along and uncovered them completely, working with separate gangs from both ends of the temple. The earth, fortunately, was easily disposed of. It had only to be carried to the slopes of the two ravines which bound the site and to be thrown over. All around the stereobate except on the north side, where bed-rock lay close to the surface, we dug down to a uniform depth of four courses, that is we cut down the entire top of the plateau to this level, so leaving the temple substructure free and clear. Inside the temple we dug everywhere to bed-rock, bringing to view whatever remained of interior foundations. In spite, therefore, of the fact that no part of the superstructure is preserved—even the stylobate and steps being gone—the visitor gains a very good idea at a glance of the general plan and outline of the temple. What remains is only the broad outer foundation on which steps and columns rested, and the foundations for the cella walls and for the interior columns. The material used throughout is a coarse-grained poros stone, in blocks whose dimensions are uniformly 1.20 m. \times .60 m. \times .35 m. The stylobate was doubtless poros of a fair sort, as are the column-drums and architectural fragments found. But no single stone came to light which could with certainty be ascribed to the stylobate, although fragments of various kinds were strewn confusedly over the whole area of the temple. We looked in vain for the familiar square dowel-hole which should mark those blocks on which columns had once stood.

The outer foundation, which is preserved through the entire circuit and marks the dimensions of the temple over all, so to speak, measures 39.60 m. in length on the sides and 19.94 m. at the ends. It is from 3.50 m. to 3.60 m. in breadth, and is built most carefully with regular alternation of headers and stretchers.

This substantial foundation, furthermore, goes down to a very considerable depth. At the northern side, where bed-rock lies just below the surface, it consists of but one or two courses. At the western end, however, where the underlying rock slopes with the incline of the hill, it increases from two to eight courses, while at the eastern end we sunk a shaft deep enough to show ten courses (3.50 m.), without yet reaching the lowest.

Contiguous to the eastern end of the foundation, just at the middle, was a platform almost exactly 4 m. square, perhaps making part of an approach to the temple, like that to the temple of Æsculapius at Epidaurus. A single square stone found close by, with parallel cuttings on its face as though for a ramp, tended to support the latter theory.

To consider now the plan of the temple: the stereobate measures, as already stated, 39.60 m. by 19.94 m. Further, from a capital which was unearthed, we found the diameter of the columns at the neck to be 1.02 m. It is quite evident from the width of the outer foundation (3.60), that this supported not only steps but a range of columns, that is, the temple was peripteral; and second, a peripteros, of so small dimensions was surely hexastyle. Probably, then, there were twelve columns on the flanks. Assuming the most usual ratio of upper to lower diameter, these columns would have measured on the stylobate 1.31 m. Assuming further that the line of the first step is .20 m. inside the outer edge of the stereobate, and that the steps were each .50 m. in breadth, the stylobate would measure 37.20 m. by 17.54 m. With intercolumniations, then, proportional to the column-diameters, there would be exactly room for twelve columns on the long side.¹⁵

¹⁵ Of course much is assumed in such a calculation as I have made; but, it seems to me, reasonably. Even, however, if we assume the smallest possible dimensions for the stylobate and so the greatest possible ratio of length to width, there could still be no more than twelve columns on the long side. The proof of my point, therefore, does not depend upon the precise accuracy of the figures employed. On the other hand, the fact that by employing figures which most naturally suggest themselves, so exact a result is secured (the discrepancy is only a few centimetres), serves to strengthen the demonstration. Of course it is well known that the ratio of length to width in Greek temples decreased from earlier to later times. Thus in the He-reum it is less than in the Parthenon or "Theseum."

The interior arrangement of the structure seems to have been the one common to peripteral temples, that is with cella, pronaos, and opisthodomos. But the incomplete remains which we found of foundation-walls do not make the entire plan clear. As the map shows, we could definitely locate only the side-walls enclosing the temple proper, the end wall to the east, and the wall dividing pronaos from cella. Therefore we could determine nothing with absolute certainty except the dimensions of the pronaos. These are: width 6.79 m., depth 4.6 m. The width of the colonnade before the pronaos was from three to four metres; on the long sides it is 1.20 less. The cella is of course the same in width from wall to wall as the pronaos, but in effect was made much narrower by two ranges of interior columns. These ran in the direction of the cella's length, thus dividing it into a nave 3.75 m. wide and two very narrow aisles. The length of the cella is uncertain. No sure trace was discovered of its rear wall, *i.e.*, the wall separating it from the opisthodomos, nor of the western end-wall of the temple. A few indications are to be found, however. First, the western end of the north side-wall seems definitely fixed. For a considerable distance where no single stone is left the course of this wall is marked by the cutting made in the bed-rock to receive it. This cutting stops at a point 5.10 m. distant from the outer foundation on the west. There are no further traces to prove surely that here was a cross-wall, but such must have been the case if, as seems certain, the side-wall did end at this point. The colonnade at the western end of the temple would then have been 2.20 m. wider than that at the east, a difference which is strange but not impossible. Further, as to the rear wall of the cella proper, its location seems to be fixed with probability by the arrangement of interior columns in the cella itself. We found bases for four of these on the north side, and five or possibly six on the south side. The third pair, reckoning from the east, lie exactly in the centre-line of the temple; and further, the last one in the southern line is not only .30 m. too near its neighbor, but is different from the rest in construction. It seems probable, therefore, that there were only five on each side, and that the cella consequently is symmetrical with respect to the centre-line mentioned. Its length, then, is twice the distance from the

eastern end to the centre, that is, 11.60 m. What I have called the sixth base was probably a part of the wall dividing cella from rear chamber. It corresponds exactly in breadth and is very nearly symmetrical in position with the wall between pronaos and cella. Ample room is thus left for a rear chamber, though it would be, as is often the case, shallower than the pronaos.

The cella structure thus probably had the form of a double temple *in antis*. This type is far more common than the amphiprostyle type; besides the latter would not require a continuous foundation for an end-wall, such as we found to exist, but would more probably be provided for by single detached piers.

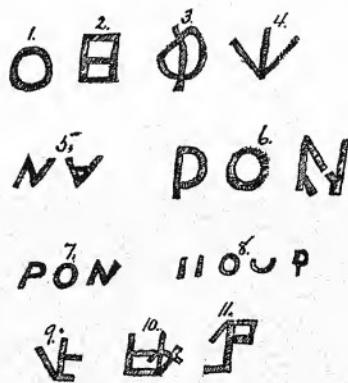
It will be seen from the various dimensions which have been given that the temple was by no means a large one, smaller in fact than one might expect so famous a foundation as the Heraeum of Argos to be. It is, nevertheless, large in comparison with most temples of Greece proper, if the chief buildings at Athens and Olympia are excepted. For example, it is more than five metres longer on the stylobate than the Heraeum.

It is impossible to do more in the way of reconstruction with what we found than to determine the ground-plan. I have already alluded to the discovery of one capital of a column. This is of the Doric order, with twenty channels. The curve of the echinus is extremely graceful, the vertical and horizontal dimensions of section being respectively .169 m. and .124 m. Besides this capital only two column-drums were found.

Enough has been said to show what the history of the temple must have been in the Middle Ages. A more thorough and systematic plundering than it suffered could not be imagined. Not only was everything above ground taken, but the very foundations were carried away. It may well be that we did not find the uppermost course of the stereobate at all; indeed the stereobate as we did find it was two courses lower at the western than at the eastern end. The cella-walls were left far below the level of the outer substructure; and one of the interior column-bases had been taken *in toto*. To show the completeness of the work of devastation it may be noted that the capital before mentioned was found resting upon the cella wall below the stereobate. So at all depths inside the temple were found remains which far antedated the

structure itself. This unfortunate destruction is due to the fact that in all ages the plain of Argos has been well populated. We feel confident that the walls of Nauplia contain very much that we did not find at the Heræum. In a church at Merbakar, a village half way to Nauplia, we recognized stones from the Heræum; and at Aniphi, also on the road to Nauplia, a column-drum from the temple which had been cut through so as to make a hollow cylinder served as a curb for the village-well.

The rough stones of the stereobate bear a series of masons' marks, which are here reproduced in facsimile. Most of them were on the inner face of the broad foundation which supported



columns and steps, only two on the bases of interior columns. They were not chiselled on the stone, but painted in red. The color was at first very bright, but faded gradually with continued exposure to the air. The letters, which were for the most part roughly traced, varied in height between .11 and .27 m., in breadth between .18 and .35 m.

The natural presumption that these markings belong to the time of the erection of the temple is confirmed by a consideration of the letters themselves. The basis for Kirchoff's¹⁷ division of Argive inscriptions into three periods is found in the varying forms of sigma, a letter which unfortunately is not included in

¹⁷ *Griech. Alphabet*, p. 97.

our number. But the concurrence of the forms A and O for alpha and omicron is enough to show that these characters belong to Kirchoff's third period ("um und nach" 457 B. C.); further, the upright form for *nu* (which Kirchoff does not recognize as Argive¹⁸) points to a time when the Ionic alphabet was at least known to the Argives; that is, toward or about the end of the Peloponnesian war. (See also on 4 inf.) This is exactly the time to which, on other grounds, the building of the temple may be assigned.

The following details seem worthy of note (see drawing):

1. There are two appearances of this form. In the third period it is used as *o* in *I. G. A.* 35, 36, 37, 38, 39, 40; as *ω* in 35, 36, 37, 38, 40, as *θ* 35, 40, (both doubted by Kirchhoff,^{43a} 44, 45). The last three are later inscriptions. It is probable that the letter represented here is *θ*, though it may be *ω*, or less probably, on account of the appearance of the later form *o*.

2. This, the Argive form for the rough breathing, is five times repeated in forms that vary but slightly.

3. The irregular shape seems due only to carelessness and the roughness of the stone.

4. The Υ of the Eastern alphabet. The forms X + for X and ΙΗ, Ξ for ξ in Argive inscriptions, made the existence of the form Υ (for Υ) in the highest degree probable, but it is here discovered for the first time. This form and that of 2 must belong to a period before the Ionic alphabet had become established in Argolis.

5. The letters are of course inverted. Both are regular forms for the period.

7. The sloping Ρ is no doubt due to carelessness. It is not a recognized form of the letter.

I can find no forms with which to compare 9, 10, and 11, and shall not attempt conjectural explanations.

It would be a long task to enumerate all the objects, large and small, that were unearthed in the temple or near it. First, of course, the now celebrated head of Hera.¹⁹ This was found on the morning of Feb. 21, lying about a foot and a half below

¹⁸ *Id., Taf. I.*

¹⁹ I mention here the sculptured works discovered only for the sake of completeness. They have been fully discussed by Dr. Waldstein.

ground, at a point just west of the outer foundation (Q on the PLAN). Two smaller heads, quite similar in technic, were found not far away. Subsequently, a youthful male torso was discovered at the greatest depth we reached inside the temple (R on the PLAN),—this fact again showing how complete the work of plunder and destruction had been. This torso is almost in the round, but is joined at the back to a relief-surface, that is almost surely to a metope. The marble is wonderfully well preserved; it had lain in a bed of sand and had kept its original polish, like the Hermes of Praxiteles. The workmanship seemed to Professor Brunn, from the photographs which I showed him, finer even than that of the Hera head. This discovery was made during the last days of our work, and, as may be imagined from its strange site, was altogether unexpected. Earlier than this we had found another torso of about the same size, but female, presumably of an Amazon. Besides these larger objects, a great quantity of sculptured fragments was discovered, arms and legs, drapery, and so on, together with pieces of what had probably been the sculptured cyma of the cornice, bearing a series of palmettes, between every two of which were varied scrolls. On these scrolls was perched, in every intervening space, a bird, perhaps a cuckoo as symbol of the goddess. Lastly, a great number of smaller objects of all descriptions came to light, some at a slight depth, others far below and inside the temple foundations. These include fragments of archaic pottery, terracotta heads, figures, and masks, pins and clasps of bronze, a bronze cock, several scarabs, one of them threaded, so to speak, on a bronze pin, pieces of gold leaf, a spiral ornament of gold, stone, bone, and ivory seals, beads of various kinds, and so on.

On the slope between the old and new temples, we uncovered a stoa-like structure of white limestone (C on the PLAN). Its direction is parallel to that of the temple and it is rather more than twice as long, so far as appears from the present excavations. Its course varies considerably from a straight line at many points and it bears all the marks of belonging to a late period of building. Only the steps are preserved for a considerable portion of its length, and we could not prove the existence of a stylobate on which columns had stood. We did find fragments of columns,

which might have belonged to the stoa, and a well preserved angle-triglyph of corresponding dimensions; also, what may have been a piece of the cornice, with finely worked ornament of mæander-pattern in relief. At a point nearly opposite the eastern end of the temple, the front line of the stoa projects very considerably toward the south, thus forming a main central portion with probably two receding wings; though toward the east we could not follow the excavation far enough to establish this detail. The main portion was cleared back to the rear wall, which makes a retaining-wall against the slope above, and is built of unhewn stones, rather carelessly laid. The whole space was completely filled with bases of statues and steles of all forms and dimensions. Some must have borne figures or groups of considerable size; all were packed together with no attempt at order or arrangement. Still more stood before the stoa, in the area between the central hall and the wings. We were surprised to find nothing more than the bases themselves, no trace of a statue and no single fragment of an inscription. The marble had of course been burned for lime during the Middle Ages. We did find *in situ*, on a stone projecting before the step next to the uppermost, a relief representing two doves facing each other. It was not work of the best period, and, as has been said, the stoa seemed on all accounts late. Moreover, one of these cross-walls dividing this middle space passed directly over a statue-base, this fact pointing to a still later reconstruction. At the west end of the stone was a curved line of foundation, the special meaning of which we could not determine.

Several minor discoveries may be briefly reviewed. An irregularly shaped pavement, made up of large square stones and resting upon a rough foundation of rubble and earth, is situated near the northeastern corner of the temple-stereobate, and is nearly of the same level. It may be explained conjecturally in a variety of ways.

An interesting trial-shaft was sunk in the hillside, about one hundred feet east of the temple (N on the PLAN). We dug down here exactly eight metres, finding at this depth a squared stone. This only shows more forcibly what was proved by our work elsewhere, that is, that further discoveries may be expected on all the

slopes about the temple, where not improbably sculptured fragments which have fallen down from above may lie buried.

On the south slope we discovered a broad flight of steps (I on the PLAN), leading up to the temple, doubtless making part of a kind of propylaea. We did not reach the end of them in either direction, though we uncovered them through a length of 17 m. There must have been, therefore, an imposing approach from this direction. The steps measure .27 m. and .45 m. in rise and tread respectively; they are of limestone and in a fairly good state of preservation.

A trial trench further to the west along the southern slope crossed, at a depth of about 1 m., a well built wall 1.75 m. wide (N on the PLAN). Lack of time prevented us from following up this suggestive discovery. We did prove by means of a second trench 6 m. to the eastward, that the wall did not extend so far in that direction.

It only remains to describe the work west of the temple, which was attended with results of especial importance. We had begun here with a deep cutting on the slope some distance below the temple, which was finally carried quite up to the foundation-walls, all the way keeping down to bed-rock, which lay sometimes 5 m. or more below the level of the original surface. Another cutting, further down the hill (H on the PLAN), brought to light remains which cannot yet be fully interpreted. We discovered the foundations of a rear wall, two cross-walls and a possible front line of columns. The rear wall, which, it should be noted, lies 9 m. below the temple-stereobate, is 1.10 m. broad and well built of quadrangular blocks. Its length is uncertain, for it extends to the north beyond the limits of our cutting. A rectangular wall, which rises to a height of nearly 5 m., is situated 2.70 m. back (east) of the wall just mentioned. One of the cross-walls belongs to a good period of building; the second suggested Byzantine construction. On the front wall one column was preserved, standing simply on a small square base. Three other bases of the same kind were found at approximately equal distances, though the whole line is covered now by an apparently later wall, broken by two doors of unequal widths. The single room which these three walls enclose is 5.25 m. in width by 4.20 m. in depth. A

stele-base 2.55 m. long continues the line of the first mentioned cross-wall toward the west.

The next higher cutting, that just below the temple (P on the PLAN), yielded no architectural remains, but from here came by far the larger part of our immense collection of terracotta figurines and smaller objects. At a depth of eight to ten feet we came upon a layer of black earth, the *μαῦρο χῶμα*, as it came to be called by ourselves as well as by the men, a layer of varying thickness, sloping with the slope of the rock below. Here, in successive pockets, we kept finding through three weeks great quantities of female heads and figures in terracotta. These were of all possible descriptions and sizes, many of the archaic bird-faced order, some retaining traces of color, and all exhibiting the most varied styles of dress and adornment. They had been without doubt votive offerings to the goddess. The whole collection is perhaps the most interesting and valuable of the kind in existence, except, it may be, that at Syracuse, where we found almost every one of our patterns duplicated. Besides these terracottas, masses of pottery fragments were found, all archaic, quantities of iron and bone rings, relief-plaques of terracotta and ivory, showing the earliest technic, seals, scarabs, beads, small sculptured figures of animals in stone, mirrors, pins, clasps, and so on. Mingled with the mass were found also teeth and bones of animals. This fact served to prove what had already seemed evident, viz., that we had come upon the refuse which had gathered about old altars, not altars which had stood here, for the slope seemed to have been filled in after the foundations for the new temple had been finished with whatever chanced to be at hand. This was proven by its whole stratification, as well as by the especial fact that we found broken fragments of worked stone in great quantities making a foundation for the upper strata. These stones had evidently been employed in older structures, and were, strange to say, of a kind found nowhere else on the site. It seemed, therefore, that we could confidently ascribe all objects which our mine yielded to a time considerably earlier than the building of the new temple, since at that time those once consecrated offerings were serviceable only as so much rubbish to be used for filling.

Two more points in conclusion. We found in the mass of

stone described what seemed like bisected drums of columns which were possibly from the older temple. They showed on one face a peculiarly worked pair of holes, designed to hold the rope by which the stone was to be lifted and put into position. It was a device which we had never seen before, though we noted it later at Girgenti. Mr. Penrose told us that it was found only in the oldest temples of Sicily.

In the same stone-heap we found something which we liked to interpret as a primitive image symbolic of divinity, or *βρέτας*. It is an octagonal shaft, having a very slightly projecting base, narrowing toward the top and broken off at a height of about two and a half feet. Several facts suggested its interpretation as a *βρέτας*. First, the difficulty of explaining in any other way so strange an object; second, the place where it was found, amid fragments from the older temple and the most primitive works of art; further, the fact that it was made of a very soft stone which could easily be cut with a knife, and that the working is so directly in imitation of the technic of wood-carving; lastly, the analogy with one of the earliest products of Greek plastic art, the Artemis of Delos. That figure represents only a reasonable and logical step in advance of this possible *βρέτας*. The interpretation given seems to me, therefore, more than probable. If it is correct, we have the earliest known representation of a Greek deity as one of the most interesting results of a profitable season of excavation.

CARLETON L. BROWNSON.

CORRESPONDENCE.

MONTEFALCO IN UMBRIA.

Favourably placed on the summit of a commanding eminence Montefalco has established the right to be entitled the *Ringhiera Umbra*, or, as we should say, the Balcony of Umbria. It is girdled with a continuous circle of cities, all of which are familiar by their names to every lover of Italian mediæval art. Perugia, Assisi, Spello, Foligno, Trevi, Spoleto, Bevagna are at your feet. Behind them looms a never-ending range of rugged mountains covered with sparkling snow. Some days the vast valley is choked with a filmy vapour, out of which rise the pale forms of the underlying cities like seaports washed by the rising tide. Here and there a lofty hill in the middle distance, oak and olive crowned, emerges as an island from the waters. Above the mist level Montefalco towers bathed in dazzling sunlight, and its glittering walls, and *Campanili* are seen painted on the glowing expanse of the intensely deep blue sky. Uncared for in evil times treasures of art still exist inherited from the best period of Italian excellence.

Long ago the Provincial Deputation of Fine Arts declared "that the "Church of San Francesco of Montefalco was superior in the beauty "of its frescoes to all the churches of Umbria, except that of San Fran- "cesco of Assisi :" but it did nothing to preserve these for future ages.

In the choir of this church are Benozzo Gozzoli's great frescoes depicting the life of San Francesco, very erroneously described and confused by Milanesi, in his note to Vasari's life of the painter, with the frescoes by the same master in a side chapel dedicated to San Girolamo. From the portraits in this choir have often been borrowed for imitation in modern times the features of Giotto, Dante, and Petrarca, under which triad are written these inscriptions, "Pictorum eximius Jottus "fundamentum et lux." "Theologus Dantes nullius dogmatis expers." "Laureatus Petrarca omnium virtutum monarca." The date of these frescoes is 1452, and in the monastery of San Fortunato, the patron saint of this city, is another dated 1450, showing the period of Benozzo Gozzoli's residence here. Besides this church there are Sant' Illuminata, San Leonardo, Sant' Agostino, and others with less claims to notice.

One of the best pictures by Benozzo Gozzoli is in San Giovanni Laterano at Rome, sent as a gift to Pope Pius IX in exchange for the barren honor granted by him of styling Montefalco a full-fledged *City*.

Perugino, Spagna, Tiberio d'Assisi, Fra Angelico, Mezastris of Foligno are well represented here, but Montefalco had its own special art-genius Francesco Melanzio, and nowhere else can he be studied. Melanzio was a pupil of Perugino, and the Madonnas he painted possesses a grace and beauty truly Raphaelesque. I will name the one in the Chapel of the Piazza as transcendent, but there are many others little inferior. Two in the small picture gallery show a great contrast and demand much faith that they are from the same hand. Both are signed and dated by him, but his progress between the five years marked on them 1487 and 1492 is almost incredible.

I have a copy of a letter dated 16th Dec., 1878, from the Director of the Dresden Art Gallery, L. Gruner, addressed to the excellent syndic Signor Loreti, which manifests his interest in Melanzio's work. He regrets his scanty knowledge of this painter, and quotes the only reference he can discover, which is in Mezzanotte's Life of Perugino published at Perugia in 1836, naming him as "Vannucci's scholar," and the probable date of his death about 1525. This statement is confirmed in a Latin MS in the possession of the Marchese Francesco degli Abati in 1796. Melanzio painted all, or nearly all, the Church of Santa Illuminata. The second chapel to the left as you enter, with a *Presoppio* in the centre, and on the sides the *Flight into Egypt*, and *Adoration of the Magi*, is a gem of the choicest art.

Professor Adamo Rossi, late architect of Perugia, sedulously attempted to trace this artist's career, and the results were intended to appear in the *Archivio Storico dell' Arte*. I do not know if his death in March, 1891, interrupted his intention. It is authenticated that he completed a *Maestà*, or wayside shrine in 1487: that he had a dispute which was settled by arbitration on 26th Feb., 1499: that on the 12th Nov., 1512, he made a payment on behalf of his wife, Maria Antonia di Pierantonio di Jacopo: that on the 24th May, 1514, he began to paint the Chapel of Santa Chiaretta in the Church of Sant' Agostino: that on the 7th Sept., 1515, he signed his name with date upon a picture over the high altar in the Church of San Leonardo: that in 1515 he signed the fresco on the third altar of the Church of Sant' Illuminata: that on the 21st Jany., 1516, he gave a receipt in his wife's name for fifty florins bequeathed to her by an aunt, Silvestra of Spoleto: that in Feb., 1517, he contracted with Bonifazio di Cuppis to paint and gild a picture and chapel in Santa Illuminata. All these notices are extracted from original notarial documents, signed and dated, which I need not further particularize.

On the 6th of May, 1888, the Communal Council of Montefalco decreed to raise a monument to the memory of its illustrious painter in his native city.

Half the frescoes in Montefalco are obliterated by dense layers of abominable whitewash; and would that I could truly speak well of the preservation of those which remain; but I am glad to say that the Minister of Public Instruction has since my visit sent an inspector to report on the Church of San Francesco, which is now inscribed on the list of Italian National Monuments. Moreover, its condition is infinitely superior to that of the Church of Sant' Illuminata, where the frescoes of Melanzio are crumbling off the damp walls for want of a trifling expenditure. Strange it is, but literally true, that in Montefalco are slowly perishing the noblest works of pictorial art, which in a London salesroom would be coveted and purchased for sums of money, a fraction whereof would pay for their safe-keeping *in situ*.

I am no believer in ineffectual word-analysis of pictures; they must be seen,—and a drive of two hours from the railway station at Foligno is not far to go for a glimpse of the artistic beauties Montefalco richly owns, until time and longer neglect shall fade them out of sight for ever.

Rough and uncouth as the Umbrian peasant roundabout here is, still as he walks the lovely country lanes in his dirty white smock, he carries within his innermost soul a dull consciousness, which lightens up with an encouraging word, that his Montefalco contains a mine of treasure which he ought to be proud of. His life and his habitation are hard and squalid, but acorn-gathering, and the despoiling of olive trees, have not quite killed the knowledge that his churches are made sacred by something bright. His voice and dialect are strident and repellent, but his "Buon passeggiò" grumbled forth surly as you encounter him is as sincere as the never-failing courteous "Buon giorno à lei" of his Tuscan neighbour; whilst underneath the Umbrian husk there is the virtue of hard labour, and its fruits are in the smiling landscape surrounding you on every side.

The Falcon which a pretty legend records to have flown in at the open window of a room where the Elders sat in council on the choice of a name to give their city when rebuilt was long a bird of doubtful omen; for in after times Montefalco bitterly groaned under the tyrannies of the Trinci family (lords of Foligno); and the ruin wrought by Martelli of the Black Bands instigated by the fierce Baglioni of Perugia; besides the dread pestilences that twice, in 1464 and 1529, devastated it; until at last it passed beneath a milder sway, and is now a place for few ambitions save peaceful ones.

WILLIAM MERCER.

Gainsborough, Lincolnshire, 1892.

NOTE TO THE ABOVE.—I would add to the interesting letter of Mr. Mercer a line regarding the inscriptions on these frescoes at Montefalco, merely for the convenience of readers, regretting that there was no time to ask it of Mr. Mercer's more competent hand.

At S. Francesco, on the S. wall near the door, is the signature of Tiberio d'Assisi, showing that he worked here in 1510: A. D. M. CCCCCX. *Tiberius de Asisio pinxit.* At S. Fortunato we find the same signature, the only difference being that the date is two years later, 1512. These frescoes are in the chapel of S. Francesco. Montefalco is perhaps the best place to study Benozzo Gozzoli. One of his two frescoes at S. Fortunato has the inscription [*Opus*] *Benotii de Florentia*, MCCCCL. At S. Francesco, Gozzoli's name as the painter of the choir is thus given on the right-hand pilaster: *In nomine sanctissime Trinitatis hanc cappellam pinxit Benotius Florentinus sub annis Domini millesimo quadragesimo quinquagesimo secundo; qualis sit pictor prefatus inspice lector.* In the vault and on the walls of the right aisle are frescoes by Gozzoli, signed and dated as follows in the sixth vault, which is the chapel of S. Jerome: *Constructa atque depicta est hec cappella ad honorem gloriosi Hyeronimi*, M.CCCC.LII *die primo novembris*, while in the frieze of the cornice is the signature: *Opus Benotii de Florentia.*

It should be noticed that there are works by the schools of Cimabue and Giotto at S. Francesco.

I would add also a few words to Mr. Mercer's very appreciative notice of Francesco Melanzio, a native of Montefalco, and none of whose signed works appear elsewhere in Umbria, to my knowledge. Mr. Mercer repeats Mezzanotti's statement that the date of Melanzio's death is about 1525. Unless the inscription in the apse of S. Fortunato has been tampered with he is shown to have been still painting in the year 1528. This inscription reads, according to Guardabassi (*Mon. dell' Umbria*): *Franciscus M. de Montefalco pinxit M. CCCCC.XXVIII.* and the subject of this charming painting is the Virgin enthroned holding the Child with three saints on each side. His signature on the painting in S. Leonardo is: *Franciscus Mel. Mont. Falc. pinxit anno Domini millesimo quingentesimo decimo quinto, die septima septembris.* The subject of this tempera painting on canvas is the Virgin and Child enthroned: on the throne are four angels crowning the Virgin, while four angels are singing above the throne: on each side are four saints in three rows. In the church of S. Maria Melanzio painted in fresco the niche behind the high altar. His signature, which is not dated, reads: *Franciscus Melanthius de Montefalco pinsit.* The subject is: above, God the Father in a glory of angels, blessing; below, the Virgin and Child, enthroned, with two angels, while on the left S. Fortunatus is saying mass. At S. Illuminata, where there are such

beautiful works by this artist, the first niche on the right contains the inscription: *Anno Domini Millesimo quingentesimo xv Franciscus Melantius P.* It is a question whether the frescoes in the next niche, dated 1505, and those in the last niche on the right, dated 1509, may not be earlier works by Melanzio.

Finally it is interesting to note that side by side with the works of the Florentine, Perugian and native schools, there are examples of the schools of Gubbio (*e. g.*, S. Francesco in third vault) and Foligno (Ch. of Turrita), so that we can obtain in Montefalco a good view of several sides of the development of Italian painting from 1450 to 1525.

[Ed.]

LETTERS FROM GREECE.

I.

No visitor with archæological interests, returning to Athens in the autumn of 1892 after an absence of three or four years, could have failed to be impressed by the progress made at the museums, especially the National Museum on the Patissia road. To begin with external appearances, the facade, which is only in part of marble, has been made presentable by receiving on its unsightly rubble the predestined covering of stucco; and the space in front, formerly crowned with ancient grave-stones, has been cleared, enclosed by a low wall and tastefully laid out with fountains and flower-beds. Passing in, one finds fifteen rooms filled with sculptures and accessible to the general public. Probably few but specialists have any conception of the great and growing wealth of this magnificent collection. Among the additions of the past two or three years are several of noteworthy importance. From Melos comes an Archaic male figure of the so-called Apollo type, misleadingly referred to in this JOURNAL, Vol. VII, p. 526, as a pugilist. This figure is better preserved than any other of its class, except the "Apollo" of Tenea in Munich, being unbroken and substantially intact, except for the loss of the right leg below the knee and the left foot. It is considerably over life-size. In style it is most nearly related to the "Apollo" of Thera, though decidedly more advanced. Rhamnus has furnished several statues, including a large Themis, dating from the end of the fourth or beginning of the third century. It is an imposing figure, though rather hard and soulless. Three colossal heads and a piece of drapery ornamented with reliefs, all from the temple of Despoina at Lykosoura, offer a difficult problem to archæologists. Numerous other fragments belonging to the same group remain at the place of their discovery. It is practically certain

that these are the sculptures described by Pausanias and attributed by him to Damophon of Messene. Now, although we have no direct evidence as to the date of this artist, the presumption has always been overwhelmingly strong that he flourished in the time of Epaminondas, when Megalopolis and Messene were first founded. But in the presence of these works one is driven to ask, Is this date possible? Some are able to answer, Yes. I must own that the specimens on exhibition in Athens seem to me so profoundly alien to what we have hitherto known of the spirit and methods of the fourth century as to shake my confidence in the antecedent presumption. Perhaps the further study of the architectural remains of the temple will help to clear up the matter. In the form in which Pausanias saw it the building was of Roman date. Whether there was an earlier building on the same site, and, if so, what was its date, are questions on which the last word has not yet been spoken. The superb sculptures from the Argive Heraion are in the museum, but not yet exposed to public view. In fact, the store-rooms still contain a great mass of material, mostly, to be sure, of inferior merit, but including pieces of extraordinary value. It is most satisfactory to be able to record the appearance in November of the first volume of the long-expected detailed catalogue of sculpture,¹ an octavo volume of over five hundred pages, containing 1,044 numbers. It is a thorough piece of work, of which Mr. Kabbadias has good reason to be proud. Still more important, at least for students who do not live in Athens, is the fact that the administration has caused casts to be made of the most important pieces in the Acropolis Museum and the National Museum, except such as show remains of painting. The catalogue of the pieces selected has just been issued.² It includes 112 numbers. One set of these casts is to be sent to the Chicago Exhibition, and will doubtless be ultimately secured by one of our museums. As soon as the necessary enabling act has been passed by the Chamber of Deputies the museum here will be ready to fill orders. It will also cast any additional piece that may be desired, so far as the presence of color does not prevent, at the price of the mould.

The rooms of the National Museum devoted to bronzes, vases, terra-cotta figurines and miscellaneous small objects still remain closed. The same is true of the great central hall, effectually frescoed in Mycenaean patterns, and destined for the exhibition of Mycenaean antiquities. The objects from Mycenae, Tiryns, Spata and Bapheion

¹ Γλυπτά τοῦ Ἑθνικοῦ Μουσείου : Κατάλογος Περγραφικός . Ήπ. II. Καββαδία, Τεμποῦ Ἐφέρου τῶν Ἀρχαιοτήτων καὶ Μουσείων.

² Κατάλογος τῶν εν τῷ Ἑθνικῷ Μουσεῖῳ ἐκμαγευμάτων , Ιανουάριος 1893.

(Vaphio) are in process of removal from one of the rooms occupied by the Greek Archaeological Society in the Polytechnikon, the constitution of the society providing for the resignation of its collections to the keeping of the National Museum, whenever required. All the vase-fragments from the Acropolis have been deposited in one of the closed rooms of the National Museum. Considerable progress has been made by Dr. Wolters and Dr. Graef in sorting and cataloguing them. Even the most casual inspection shows that they are to be a perfect mine of information for the student of Attic vase-painting. Finally it remains to speak of the epigraphical museum in the ground-floor rooms and courts. Under the care of Dr. Lolling this collection, which now includes the inscriptions formerly in the keeping of the Archaeological Society, is in process of arrangement, and it is regularly accessible every morning from 9 to 12. In one room, devoted to the more transportable inscriptions from the Acropolis, the task of classification has been completed, and a catalogue of this room is understood to be well forward.

The excavations undertaken at the end of last January by the German Archaeological Institute between the Areopagus and the Pnyx were interrupted early in April by Dr. (now Prof.) Dörpfeld's customary Peloponnesian tour. They were resumed on Nov. 1st, and have just been broken off again. The main object of these excavations has been to find the famous Enneakrounos, the nine-mouthed fountain of the tyrant Peisistratos. It will be remembered that most authorities on the topography of Athens (Leake, Curtius, Wachsmuth, Lolling, etc.) have identified this fountain with a spring outside the ancient city, on the southeast, close to the Ilisos and just below the temple of Olympian Zeus. Prof. Dörpfeld, however, has for many years assigned it to a very different neighbourhood. The spot where he conjecturally placed it may be seen on the plan to face page 5 of Miss Harrison's *Mythology and Monuments of Ancient Athens*. It is between the Areopagus and the Pnyx, near the southwest angle of the former. At this point, therefore, digging was begun. One of the earliest results was the discovery of the ancient street which ascended from the north, *i. e.*, probably from the *agora*, toward the Acropolis, following the same general direction as the modern road. In spite of its relative importance it was a narrow street, 10-16 feet wide. One is forcibly reminded that the city was, as the Pseudo-Dicaearchus puts it, *ἐρυμοτομηένη διὰ τὴν ἀρχαιότητα*. The Panathenaic ship, so notable a feature of the procession which climbed this ascent to the acropolis, could have been no great affair after all. Remains have been found of a close succession of buildings bordering the street on

its western side. Some of them were private houses, but not enough is left to give us any new light on the domestic architecture and arrangements of ancient Athens. At one point a foot-way diverged to the east, and apparently ascended steeply to the acropolis, while the main street wound around at an easier grade. At the corner thus formed, on the south side of the foot-way, a sacred precinct, dating from the fifth century b. c., has been brought to light. The votive reliefs found here show that a god of healing was worshipped in the precinct. One of these reliefs, representing a man holding before him a gigantic leg, the foot planted on the ground, affords a curious novelty in this class of ex-votos. Under the main street, to come back to that, runs a large earthenware drain, with well-preserved man-holes at frequent intervals, and into this main drain numerous smaller ones discharge. But these results, though they have a very considerable interest, are merely incidental. The main fact is that Prof. Dörpfeld believes he has at last fixed the position of the Enneakrounos. The spot is considerably higher up than that which he once conjecturally assigned, being in fact just about where the axis of the Propylaea, if produced, would cut the modern road. The outlet of a subterranean aqueduct of Greek construction has been discovered here, which comes from the southeast and may well be the end of the conduit found in 1889 under the theatre of Dionysus. This aqueduct must not be confounded with the one previously known in this neighbourhood and represented in Miss Harrison's map. The latter is now relegated to Roman times. The former is assigned, on the ground of its character and that of the terra-cotta water-channel found in it, to the sixth century b. c. This aqueduct supplied a large rectangular basin, of which recognizable traces remain. There are further indications bearing on the question, and the full weight of the evidence cannot be appreciated till Prof. Dörpfeld has published his final report. I think he has established the fact that in the Peisistratic period a supply of water, such as Athens had never known before, was brought from a distance, probably from the Ilisos, to the point I have designated, where it fed a great public fountain. This is, of course, a great gain for Prof. Dörpfeld's Enneakrounos theory, which I think may now claim a decided balance of probability in its favor. But, after all, there still remains some troublesome evidence on the other side, especially the often-quoted passage in Thucydides (II. 15), which to most readers seem to imply that the Enneakrounos was to the south of the Acropolis. So I fear that this important question in Athenian topography has not yet reached a final settlement.

As usual the work of exploration was going on during the summer and autumn at various points in Greece, but as the official bulletin,

the Δελτίον Ἀρχαιολογικόν, is now sadly in arrears—the latest number is that for August, 1892—it is not easy even for a resident of Athens to report results. At Epidauros Mr. Kabbadias was engaged in the excavation of the sanctuary of Asklepios. His comprehensive work on the subject, to be entitled *Les Fouilles d'Epidaure* is in press, and is expected to appear within a few weeks. At Eleusis Mr. Philios, and at Mycenæ Mr. Tsountas, carried on the respective explorations with which their names are so honorably associated. At old Corinth, which had been as good as untouched by the archaeologists' spade, Prof. Skias has exposed the ruins of two or three buildings, and—what is more important—has shown thereby that extensive remains of the city are awaiting resurrection. All the four enterprises just referred to have been carried on at the expense of the Archaeological Society at Athens.

An important undertaking of a different sort is that of the Royal Geographical Society of Great Britain, which has commissioned Mr. G. B. Grundy, of Brasenose College, Oxford, to make contour-maps of the principal battle-fields of Boeotia. Mr. Grundy came to Greece about the middle of December, and, in spite of somewhat severe weather, soon finished his survey of the battle-fields of Plataia and Leuktra. In a subsequent visit he will go on with the work.

But the most important event which it falls within the scope of this letter to record is the beginning, in October, 1892, of the thorough excavation of Delphi. The people of Kastri have not yet been removed to the new site assigned them three-quarters of a mile further down, toward Chryso. Indeed in October nothing had been done toward building the new houses or supplying the place with water. There was an impression among the Kastriotes that the whole project would never come to anything. Under these circumstances M. Homolle, the Director of the French School, under whose personal superintendence the excavation will be conducted, judged it wise to make a beginning at once. The earth thrown out by former diggings and heaped up a little below the polygonal wall which supports the temple-terrace, had to be cleared away, and the autumn campaign was devoted chiefly to this somewhat uninspiring, though necessary, task. When the villagers saw that the long-deferred work was really being taken in hand, that their deportation was imminent, and yet that their new homes were not ready to receive them, some little opposition developed itself. It came to throwing stones at the workmen. The affair was much exaggerated by rumor, but it was so far troublesome that M. Homolle called for protection from the military and received a guard of some fifteen soldiers. When the soil below the accumu-

lated débris was reached, discoveries began. A quantity of inscriptions were found, among them one long one containing a decree of a phratry. This, of course was to be expected. No one ever doubted that the soil of Delphi was still rich in inscriptions. More important as an earnest of things to come was the discovery of a section of the Sacred Way with its ancient paving, of the foundations of a circular building and of several fragments of architecture and sculpture. The approach of winter interrupted the work, which will be resumed on a much larger scale in March. It is expected that the new village will then be ready, and that the tearing down of the old houses can begin without delay. The results so far gained are encouraging for the future, and Delphi promises to be ὁμοῖος γῆς for classical archaeologists for several years to come.

F. B. TARBELL.

American School, Athens, Feb. 15, 1893.

II.

In a previous letter I described some of the results of exploration carried on in Greece in the autumn and winter of 1892-93. The opening of spring has been, as usual, the signal for the renewal of activity in this direction,—an activity nearly confined to the foreign Schools, inasmuch as the Greeks generally prefer digging in the summer and autumn.

At Kastri (Delphi) excavation was resumed early in April and is now in progress. The work is under the charge of M. Homolle, Director of the French School, with M. Couve, a member of the School, as his chief assistant. The task of transferring the village which cumbers the ground has proved a slow one. Only a few houses in new Kastri are at present completed and occupied, and most of the houses in old Kastri remain standing, many of them being still inhabited. However, the villagers seem now to have quietly accepted the inevitable. There is a small guard of soldiers in the place, but no disturbance of the peace has occurred, so far as I know. A beginning has been made of pulling down the houses which cover the site of the great temple, but actual excavation has thus far been confined, or at last accounts had been, to the tract immediately below the polygonal retaining-wall of the temple-terrace. Numerous inscriptions are known to have been found, but nothing has yet been made public as to their contents. The discovery whose significance can be most promptly appreciated is that of several archaic metopes, belonging to a building of which the foundations have been unearthed. It is conjectured

that this building is the treasure-house of the Athenians, mentioned by Pausanias (X. ii. 5), and alleged by him to have been erected from the proceeds of the spoils taken at the battle of Marathon. The style of the metopes appear to me of a distinctly earlier date, but the discrepancy is not a serious matter, for Pausanias is notoriously untrustworthy in regard to the dating of monuments. At any rate, these sculptures, of which several pieces are in excellent preservation, are of extreme interest in themselves, and their discovery, almost before the upturning of the soil of Delphi can be said to have seriously begun, brings one hopeful assurance of the harvest that is in store.

The British School has been very active this spring. The finishing touches have been put upon the work at Megalopolis by the complete clearing of the Thersilion, the great hall behind the theatre. No important new discoveries were expected, nor were any made. A fresh place was tried in Aegosthena—an ancient site of which, since it has altogether escaped mention in Baedeker and the Guide Joanne, it may not be superfluous to say that it lies in the Megarid, on the Gulf of Corinth, and that it possesses remarkably well preserved walls. The work here was carried on chiefly by Messrs. Benson, Bosanquet and Mayor, members of the British School. Unfortunately it proved that the neighborhood had been plundered by the unauthorized diggings of the peasants. Still, toward the end of the three weeks campaign, considerable quantities of early terracottas and vases, presenting interesting points of study, and one piece of marble sculpture were secured. Messrs. Bather and Yorke started a few days ago for the site of the Arcadian Trapezus, not very far from Megalopolis, and are doubtless now conducting excavations at that place.

It remains to report briefly on the excavations of our own School in Sparta and at the Argive Heraeum. The work has been under the supervision of Dr. Waldstein, and it belongs to him to give the first full account of the results. At Sparta Mr. Meader was commissioned to complete the uncovering of the circular foundations, supposed to be those of the building mentioned by Pausanias (III. 12. 11.) as near the *Skias*, where the Spartan *ekklesia* was held. Some confirmation was obtained for the belief that these foundations were not a mere platform, but supported a superstructure, as one would naturally infer from Pausanias' language. Beyond this there is little to say. Much greater interest attaches to the work at the Heraeum. The campaign here occupied the month of April, and was conducted by Dr. Waldstein in person, assisted by Messrs. Washington, Lythgoe, Norton and (for a part of the time) Meader. The clearing of the site has been accomplished with great thoroughness, so far as it has gone. The

cyclopean retaining-well of the other temple has been laid bare to the foundations, and remains of stoas and other buildings such as belonged to a temple-precinct have been more or less completely disclosed. The task of reconstructing on paper the temples and other buildings has not been attempted as yet, but even without that the architectural remains *in situ* are of considerable interest and value and will add to the already unrivalled attractions of Argolis. The small finds, consisting of pottery, terracotta figures, architectural fragments, inscriptions, sculptures, etc., have been, for the most part, transferred to the museums of Argos and Athens, the latter taking everything that was judged of first-rate importance. There is an immense mass of this material, the proper study of which will require weeks and perhaps months of patient labor. The inscriptions are the only class of objects which has fallen below reasonable expectations. They are very few in number and most of them of no great interest. One of them, however, has some paleographical importance, presenting, as it does, the Argive form, hitherto all but unexampled, of the letter B. On the other hand a gratifying number of fine sculptures in marble was found. One of these is the torso of a small archaic image of a goddess, clasped by a life-size arm. This must have been part of a group, and it is tempting to refer it to the second temple. As Dr. Waldstein suggested at once, the subject would suit an Iliupersis, which we know from Pausanias to have been represented in the sculpture of one end, probably the west end, of the temple. Now the fragment discovered is certainly not part of a metope, but would go very well, so far as I can judge, in a pediment. If so, we should have to give up the tentative suggestion of Dr. Waldstein (*Excavations at the Heraion*, p. 7), assigning the Iliupersis exclusively to the metopes, and should be brought back to something like Welcker's view, which referred that scene to the west pediment. Another inference may be hazarded, though dubiously. The marble of the fragment in question resembles that of the other fragments supposed to be pedimental, as well as that of the metopes, but differs from that of the "Hera" head. The former is said to be Pentelic, the latter, Parian. This fact is decidedly discouraging to the idea that the "Hera" stood in one of the pediments. However, we must wait till all the evidence is in before attempting to decide these questions positively. The two most beautiful pieces of sculpture which we owe to this season's work were found on one of the last days, after Dr. Waldstein's departure from the scene. One of them is a female head, of the same dimensions as the Rhangabé head, and the Amazon (?) head of last year, and presumably belonged to a metope. It is in excellent preservation, and is very charming. The

other piece, which certainly belonged to a metope, is the torso of a draped female figure, apparently engaged in a struggle,—a spirited and admirable work. I have probably said enough to show that this season's campaign at the Herreum has been highly successful. If the results have not been so dazzling as those of last year, they have at any rate been abundant and important. I am glad to be able to add that the sculptures from that site are no longer hidden from public view. All the most important pieces from the Rhangabé excavations and our own, with the exception of the archaic goddess, are now conveniently exhibited in one of the accessible rooms of the Museum.

F. B. TARBELL.

Athens, May 24, 1893.

To the Editor of the American Journal of Archaeology:

Dear Sir: Permit me to correct a statement made by me in describing (Vol. VII of this JOURNAL, p. 440) the "mensa ponderaria" from Assos, now in the Boston Museum of Fine Arts. I said there that the name σήκωμα, as applied to an object of this class, was unsupported by ancient usage. I had in mind the important Attic decree (C. I. A. II 476), in which σηκόματα signifies weights and measures which have been tested and approved by comparison with the public standards, here called σύμβολα, and which are intended for actual use in buying and selling. But I had overlooked an inscription from Delos, published by M. Homolle in the Bulletin de Correspondence Hellénique, 1879, page 379 (=Dittenberger, *Syll. Inscr. Graec.* No. 342). This is upon a marble block containing a single measure of capacity, and reads: . . . η[μ]ιος Διοδότου Μαραθώνιος, ἐπιμελητής Διήλου γενόμενος, σήκωμα σιτηροῦ ἡμεδίμνου Ἀπόλλωνι. The use of σήκωμα for a public standard seems thus sufficiently guaranteed.

F. B. TARBELL.

REVIEWS AND NOTICES OF BOOKS.

HISTORY OF ART IN PHRYGIA, LYDIA, CARIA, AND LYCIA. From the French of Georges Perrot, member of the Institute, Professor of the Faculty of Letters, Paris, and Charles Chipiez. Illustrated with two hundred and eighty engravings. London: Chapman & Hall; New York: A. C. Armstrong & Son.

HISTORY OF ART IN PERSIA. From the French of the same, issued by the same publishers. Illustrated with two hundred and fifty-four engravings in the text, and twelve steel and colored plates.

These two volumes correspond to the fifth volume of the *Histoire de l'Art dans l'Antiquité* by Messrs. Perrot and Chipiez, and complete the history of Oriental art. With the next volume the history of Greek art begins. In discussing the work now before us it is well to keep the original distinct from the translation, for the matter contained in these volumes is the work of Messrs. Perrot and Chipiez, while the translation is the work of some wisely anonymous person or persons. The contents of this volume will prove in no way disappointing to those who are familiar with the previous volumes of the *Histoire de l'Art*. The treatment of the art of each nation is preceded by an account of the history of the nation itself, going back rather further than is absolutely necessary into the earliest prehistoric times. The same diffuseness and lack of proportion noticeable in the earlier volumes (see review of the *Art in Phenicia and its Dependencies*, A. J. A., Vol. I, p. 190 ff., by A. R. Marsh,) is here also observed. The plates are carefully executed, while the engravings in the text are less attractive than they should be. Both the plates and engravings make a better appearance in the French edition than in the translation on account of the different quality of the paper used.

The work before us treats of Oriental, not of Greek art, and therefore those monuments in which Greek influence is predominant are not discussed. Many monuments belonging topographically to the regions here described are for this reason passed by in silence to be mentioned in their proper places in the history of Greek art. This is notably the case in regard to Lycia, whose purely indigenous art fades

almost into insignificance beside the specimens of Greek handiwork found at Xanthos and Gjöl Baschi.

The arts of Phrygia, Lydia, Caria, and Lycia are treated in four hundred pages, which might well have been less. In fact, there seems to be some difficulty in finding enough to say. The matter and illustrations are, of course, chiefly borrowed from the works of others, but the treatment of the subjects as connected wholes belongs to M. Perrot, and we owe him a great debt of gratitude for giving us in one volume an exhaustive treatment of matters hitherto discussed for the most part in scattered monographs and articles. In the section devoted to Phrygia, M. Perrot indulges in occasional polemic against Professor Ramsay, the value of whose labors he does, however, not fail to appreciate. The account of Lycian Tombs is no more than a summary of Benndorf's exposition in *Reisen im südwestlichen Kleinasiens*, and the same work furnishes most of the matter for the entire account of Lycia.

Five hundred pages are devoted to the art of Persia alone, and this is by no means disproportionate. To be sure, Persian art has had comparatively little influence upon the world in general, having arisen too late to affect the early development of Greek art, yet it is in itself interesting, showing, as it does, the effect of Assyrian and Egyptian influence upon a primitive art and timber architecture. Although Persian art arose long after the beginnings of Greek art, it is properly treated in this volume, for its character is Oriental, and besides, one need but imagine the effect of treating it after Greek art to justify the author in disposing of it here.

A useful list of the chief works relating to Persian art is given in a note on p. 35 (of the translation). Those most frequently referred to are the works of Texier, Flandin and Coste, and Dieulafoy. What polemic this book contains is directed mainly against Dieulafoy. The treatment of coinage is based for the most part upon that of Barclay V. Head, *Historia Numorum* and *The Coinage of Lydia and Persia*. In the concluding chapter on "the general characteristics of Persian art," M. Perrot gives a useful summary of his views of the relation of the art of Persia to that of other peoples. From Assyria the Persians borrowed the use of brick in their great edifices and the practice of raising their palaces upon a platform above the plain. The conquest of Egypt by Cambyses brought in its train the introduction of the column and the hypostyle hall, though the origin of the Persian capitals is rather to be sought in Assyria. The influence of Greece is to be found in sculpture (especially drapery) and to some extent also in architectural details. In this volume, as in the previous volumes of the *Histoire de*

l'Art, M. Perrot has given us substantially all that is known of the art of the nations in question, adding to his array of facts much valuable discussion. The book will be of much use to scholars, and if it is not complete or final, that is due in great measure to the incompleteness of excavations.

The English translation is bad. The purpose of a translation is to enable those who cannot read the original to obtain with ease and, if possible, with pleasure an accurate knowledge of its contents. It is doubtful if any one unfamiliar with the French language can tell in all cases what M. Perrot said by the perusal of this translation. Certainly no one can read the translation with pleasure, for its language is rarely, if ever, elegant, and frequently obscures or even perverts the meaning of the original. A few examples taken at random from many will give some idea of the character of the translator's work. M. Perrot says (p. 250) in speaking of the site of Sardes: "C'est de ce côté, en face du confluent des deux ruisseaux, que paraît s'être trouvé le quartier principal de la ville, celui qui renfermait le bazar auquel aboutissait et que traversait le grand chemin des caravanes." The translation reads (p. 243): "The principal quarter of the city, now occupied by the bazaar, and the rendezvous of caravans, was on this side, and faced the point where the two streams met." To one who has visited the almost deserted site of Sardes, the place "now occupied by the bazaar and the rendezvous of caravans" seems decidedly mythical. M. Perrot says (p. 19): "Cet art d'extraire et de travailler les métaux, les Phrygiens n'ont pu l'apprendre qu'en Asie." The translation reads (p. 10): "The art of mining and working metals was not learnt in Asia by the Phrygians." In the French we read (p. 492): "L'architecte s'est sans doute aperçu, à un moment, qu'il y avait là un défaut, que son chapiteau, s'il accompagnait bien l'architrave en se développant à souhait dans la même direction, s'emmanchait mal avec le fût." In the translation (*Persia*, p. 92): "The architect doubtless perceived, at one time, that this was faulty; that if his capital harmonized with the architrave and could be extended indefinitely along with it, its mode of attachment with the shaft was bad." In the French (p. 404): "Dans cet ensemble, la disposition des deux couples de volutes offrait quelque analogie avec celle des prothyrides grecques, si l'on supposait les enroulements du sommet développés dans une direction opposée à celle des volutes, comme dans l'échinus; mais ce n'est pas ici le cas: les volutes, comme dans le chapiteau ionique, se font pendant; leur courbe à toutes est tournée dans le même sens." In the translation (*Persia*, p. 94): "Considered as a whole, the arrangement of the double set of volutes is not without analogy with that of

the Greek prothyride (order reversed), with this difference that the Persian spires, like those of the Ionic capital, are symmetrically arranged, *e. g.*, all the scrolls are turned one way, and not opposed to each other, as in the Greek example." Here the sense of the English is rendered doubly obscure by the use of *spires* instead of *volute*s or some equivalent term and by that of *e. g.* instead of *i. e.* This last mistake is constant throughout the book.

Examples of mistranslation of whole passages, like those given above, might easily be multiplied. Then, too, certain words are regularly mistranslated, so, for instance, *ce*, *ces*, and the like, in the sense of *such*, are rendered *similar*, (*e. g.*, *Phrygia, etc.*, pp. 194, 250, 356, 374, 382,) with a somewhat grotesque effect. Moreover, there is hardly a German book-title given without at least one grammatical mistake, and it is difficult to believe that all of these are due to the printer. The translator seems somewhat unfamiliar with the names of ancient writers, for we read *Denys Periegetes* (*Phrygia, etc.*, pp. 5, and 193, note), *Eustathes* (*ibid.* p. 5, note), *Philostrates* (*ibid.* p. 26, note), *Denys of Halicarnassus* (p. 236, note), *Xenophon* for *Xenophanes* (p. 253, note 7,) and the like, in most of which cases the French form of the name has led to the mistake. This is, however, hardly the case with *Dionysius* for *Dionysos* (pp. 35, 36; *Dionysios*, p. 303, note 2). Hecate appears as *Hecates* (p. 304, note 7), Omphale as *Omphales* (pp. 297, 301), the Megarid as *Megarides* (p. 306), and other names are misspelt in a way to show remarkable ignorance of the classics. Occasionally the translator spares himself the trouble of finding an English word, as when he uses *ferine* (*Phrygia, etc.*, p. 216), or *ferae* (p. 217) to denote *wild beasts*.

There are a number of notes signed *Trs.*, few of which add anything of value, while some are positively wrong. One of the most inexcusable liberties taken by the translator is *Persia* (p. 107) where we are told: "Examination of the scanty remains of the Propylaea shows us that it certainly did insert bulls about the column, but in a different way, interposing them between the shaft and the *entablature*." A note says: "*Ground* occurs in the text, but it would seem to be a misprint." On the contrary, *ground* is correct, and *entablature* utterly wrong.

Inasmuch as translations are presumably made for the benefit of those who cannot conveniently read the original, it is inexcusable that all reference to the previous volumes (or even the present volume) of the *History of Art* are made to the volumes and pages of the French edition, nor is there any excuse for referring to the French edition of Curtius' *Griechische Geschichte*, which exists both in the original German

and in an English translation. A careful translation would also have avoided the astounding statement that at Kumbet "at 6 a. m. on the 12th of June, the thermometer marked six degrees above zero," for he would have borne in mind that the thermometer used in France is the centigrade, while the familiar thermometer in England is the Fahrenheit, and would have written "about forty-two degrees." It should also be borne in mind that the abbreviation *M.* for *Monsieur* is French, while the corresponding English abbreviation is *Mr.*, and though it may be proper to prefix *M.* to the names of Frenchmen, there is no reason for treating Germans, Englishmen, or Scotchmen in the same way. It is at first somewhat confusing to find Professor Gustav Hirschfeld masquerading as M. G. Hirschfeld or Professor W. M. Ramsay as M. Ramsay in what purports to be an English book. Perhaps, however, the translator should be pardoned for his disregard of occidental distinctions if, as he seems to assert, he is a Persian; at least, his reference (*Persia*, p. 9,) to "the Iranian group to which we belong," must be taken to apply to himself rather than to his readers.

If too much space seems to have been devoted to the faults of the translation, it is because this work is one of great importance, and in the hope that the task of translating the forthcoming volumes on Greek art may be entrusted to competent persons.

HAROLD N. FOWLER.

LÉON DE LANTSHEERE. *De la Race et de la Langue des Hittites*. Brussels: Goemaere.

It will be difficult to find a more clear and comprehensive account of what is known or conjectured up to the present moment concerning that interesting people of the ancient East, than that of M. de Lantsheere. The author does not confine himself to a mere repetition of the assertions of others, or of the facts with which we are already acquainted; from time to time he criticises the theories which he passes under review, and suggests fresh points of view of his own. Perhaps, however, the chief merit of the book is its orderly arrangement of the material, and the scrupulous care with which references are given for the statements made in the text.

The arguments which show that the authors of the Hittite monuments were the Hittites of the Old Testament, and of the Egyptian, Assyrian and Vannic inscriptions are set forth with great lucidity. One of the most striking of these arguments is the fact that the Egyptian artists have represented the Khata or Hittites with precisely the same remarkable features as those which are ascribed to them in their own sculptures.

He has also drawn attention to certain artistic details which point to the northern origin of the Hittite tribes, and at the same time indicate a comparatively early date for many of the monuments they have left behind them. Thus the Hittite king Khata-sir is represented on the Egyptian monuments with precisely the same tiara as the personage represented in the Hittite sculptures of Giaur Kalessi in western Asia Minor. Moreover, "the human heads so frequently found on the Hittite inscriptions occur as a decoration on a silver vase discovered at Mykenae by M. Tzountas." These and other parallels between the art of the Hittite monuments and that of the Mykenaean period in Greece are of considerable value in determining what we may call the "Hittite age," since the discoveries of Dr. Flinders Petrie have now removed all doubt from the minds of competent archaeologists as to the early date of the Mykenaean antiquities.—A. H. SAYCE in *The Academy*, Oct. 29, 1892.

STANLEY LANE-POOLE. *Cairo: Sketches of its History, Monuments, and Social Life (Virtue).*

The endeavor to write a book that shall be worthy of such a subject as the above is doomed to be in part a failure. Mr. Lane-Poole's volume, however, in spite of its shortcomings, is always sympathetic and often successful; but it is, of course, impossible in three hundred pages to deal adequately with the history, monuments, and social life of a city so full of historical memories, motley crowds, and superb buildings.

The weakest chapters are those relating to subjects that do not appeal to the general public, for whom this book is specially intended. But in his other works Mr. Lane-Poole has minutely treated of Saracenic art and architecture; and the copious reference to them make it easy for those who, having found the short sketches of Cairo mosques and of the museum of Arab art interesting, desire to pursue the study further. His chapter on "Modern Babylon" is excellent and his descriptions of the Coptic churches among the best in the volume.

While describing the domestic architecture of the city Mr. Lane-Poole complains, with good reason, of the evil influence of successive Khedives, who all seem to have delighted in pulling down the beautiful buildings of an olden day and erecting ugly Italianized villas and palaces in their place.

Mr. Lane-Poole is at his best in this book when he is discussing the character of the Cairene and fellahs, for he thoroughly understands them and has heart enough to sympathise with them. It is because

of his acquaintance with the people of the Delta that his chapter on English rule in Egypt is of great value.

Indeed the true value of this book lies in its graphic account of modern Egypt, the Egypt of Abbas II. But the author reminds us that the Egypt of the Mahomedans, the Egypt of the Saracenic invasion, is certainly as worthy of study; for the way of life and methods of thought introduced by Amru and his followers are not yet dead and done with.

The illustrations are often excellent and never really bad. The landscapes and architectural drawings are very well done, and give no inadequate notion of the city and its surroundings. The representations of figures and faces are less good, the latter being invariably too darkly shaded.—PERCY ADDLESASHAW, in *The Academy*, Jan. 14, 1893.

J. KRALL. *Die etruskischen Mumienbinden des Agramer National-Museums.* (From the "Dankschriften der K. Akademie der Wissenschaften in Wien," Vol. XLI.)

About the year 1849 an Egyptian mummy of the Ptolemaic epoch was brought to Europe by an Austrian traveller, ten years later it found its way into the museum of Agram, about this time it was unrolled and it was noticed that some of the linen bandages were inscribed with characters. Brugsch Pasha examined these in 1867-8 and thought them to be Ethiopian. Sir R. Burton suspected that they were from some Arabic tongue. It was reserved for Prof. Krall to discover that the letters were those of the well known Etruscan alphabet, and that the words inscribed on them were words which have been met with in Etruscan texts.

The complete editing of the text has been a work of time and difficulty, here and there the letters were almost or entirely illegible. Moreover the linen pages of the book had been torn into fragments and to fit these together was by no means an easy task. The work, however, has now been accomplished, and we have before us, in consecutive order, what Prof. Krall calculates to be about two-thirds of the original text.

The nature of the text has been determined from the continuous use of certain words; these would designate it as a sort of ritual for the dead, like the Egyptian Book of the Dead. Its ritualistic character is further made apparent by what is evidently a sort of magical incantation at the beginning of the seventh column.

The newly-discovered text is particularly valuable in showing us at last what were the forms of Etruscan grammar. Prof. Krall's discovery has dealt the death-blow to all the theories which assumed the Etrus-

can language to be Indo-European. Prof. Krall discusses the question of the newly-discovered book, and proves conclusively its genuineness. It seems probable that the pages of the book were not used as wrappings for the mummy owing to any significance of the text, but were purchased for the linen, from some Etruscan, residing in northern Egypt. The index to the Etruscan words contained in the text has been prepared by the competent hands of Dr. Deecke.—A. H. SAYCE, in *The Academy*, Oct. 15, 1892.

GREEK.

PERCY GARDNER. *New Chapters in Greek History: Historical Results of Recent Excavations in Greece and Asia Minor.* Murray; London.

A large proportion of the book consists of articles republished from various views and magazines. Professedly "a rough outline" and without pretension "to be exhaustive" it is consistently popular both in style and treatment. Put forth under a sense of "the responsibility of publishing such opinions as many years of study of the subject have suggested," we accept it as embodying the best considered conclusions of the school of Oxford. Prof. Gardner, as he says, has written "not for archæologists but for the ordinary educated reader" who, acquainted with the literature or the history or the art of Greece, wishes to "fill up lacunæ" or to learn in what directions the spade is increasing our acquaintance with the ancient Greeks.

There is a great deal of interest and instruction to be gleaned from all of the essays, of which those on Olympia, the successors of Alexander and the excavations on the Athenian acropolis are, perhaps, the best. The chapter on Eleusis and the Mysteries is too short to do justice to the subject. The author treats of the relation of archæology to history and of the changes the latter has undergone under the influence of the former; arguing the importance of dealing with "facts, not with words, with actual objects, not mere notions," in such a way as to make it appear a postponement of meaning to matter of thought to sensation.—*The Athenaeum*, Sept. 24, 1892.

GUIDE JOANNE. *Grèce, Vol. II: Grèce continentale et îles.* Paris: Hachette, 1891.

The first volume of this guide, published in 1888, treats exclusively of Athens and its environs, the present volume includes even Crete and Epirus in its scope. As a hand-book it compares very favorably with the well-known English and German works on Greece; while Murray is distinguished for its fulness of detail and readable style and

Baedeker for its compactness and the clearness of its maps, Joanne has the advantage of containing the latest information, which has been carefully verified. In order to ensure completeness in this line, the editor, M. Haussoullier, has obtained for special sections the assistance of other members of the *École française*, who have been engaged in various forms of research throughout the country, M. Monceaux for Thessaly, M. Lechat for the Ionian Islands and M. Fougères for the Peloponnes, Delos and the Pindus range. The Abbé Batiffol, the student of Greek MSS. in South Italy, has contributed the sections on the routes in Epirus.

Among the recent discoveries noted in this guide is that of the cave of Zeus in the higher regions of the Cretan Ida. This spot, the center of so many ancient legends, was discovered in 1884, and, the following year, excavations in the neighborhood brought to light many objects of interest.

One of the most attractive portions of the guide is that which describes the outlying districts of Northern Greece—Acarnania, Epirus and Thessaly, parts of Greece where it is still possible to rough it for several days together. In this connection, M. Fougères particularly recommends the route from Arta to Trikkala, through the upland valleys of the Pindus range. The tourist will be amply repaid by the beauty of the scenery, and traversing the pass of Gomphi he will have the opportunity of tracing the route followed by the Roman consul Flaminius, by Quintus Marcius Philippus and other commanders. Thus we see that Greece offers many charms to visitors besides those of the most famous sites.—From H. F. TOZER, in *Classical Review*, 1892, p. 53.

A. S. MURRAY. *Handbook of Greek Archaeology*. London: J. Murray, 1892.

In this handbook, based on a series of lectures delivered by Mr. Murray in Edinburgh in 1887, we have an excellent sketch of the most important subjects which are included under the Art and Archaeology of Greece. It comprises the earliest Hellenic art; the painted vases of the Greeks, their gems, their bronze work; even their sculpture, painting and architecture are treated of, in this very interesting though brief series of essays.

The first chapter deals with the origins of Hellenic art; the historic period of Greek art can hardly be said to go back to a period earlier than 700 b. c.; but the discoveries of recent years are furnishing valuable evidence in the shape of vases, gems, and other objects which clearly belong to a period earlier than that depicted in the Homeric

poems. In the tombs of Ialyssos in the island of Rhodes royal scarabs of about 2000 b. c. have been found with Greek pottery of the earliest class, that which is devoid of painted ornament and decorated merely with simple patterns executed in incised lines deeply scratched into the surface of the pottery before firing. Moreover, Mr. Petrie has discovered painted vases of the 'Mycenae type' in the tombs of Upper Egypt, in conjunction with native objects whose date can safely be fixed between the xv and xii centuries b. c. By degrees a stylistic classification of Greek pottery in chronological order has become possible. The first class comprises the rather rude pottery with incised ornament mentioned above. The second, the early 'Mycenaean vases' with realistic painting of marine animals and plants. The third class is characterized by painted geometrical patterns, with very conventional figures of men and animals. Fourth, the vases of Oriental style with long bands of animals and birds of distinctly Assyrian type on backgrounds carefully filled in with geometrical patterns or powderings of rosettes or flowers. The fifth class, in the sixth century, bears a more dramatic style of decoration, with elaborate figure subjects in black on a red ground; and lastly, in the two centuries following, the beautiful figures exquisitely drawn in red on a shining back ground of perfectly black enamel. Mr. Murray tells us that this change from black to red figures took place about the time of the Persian wars; this is, in the main, true, but recent excavations in the ruin caused by the Persian sack of Athens have shown that very beautiful specimens of this type were produced before the Persians landed in Attica.

Mr. Murray devotes a most interesting chapter to the exquisite outline drawings on the Greek bronze mirrors and *cistae*, like those on the Ficoronian cista in the Museo del Collegio Romano in Rome. It is difficult to believe with Mr. Murray that the signature on the lid is that of the artist who engraved the wonderful and delicate series of subjects which decorates the circular drum of the cista; the heavy touch of the graver of the inscription makes it seem much more likely to be the work of the inferior Italian bronze worker who clumsily added the feet and handles to this beautiful specimen of Hellenic art.

The chapters on engraved gems, and on sculpture in relief and in the round, are full of valuable matter for students of Greek art, and are wonderfully condensed.

The architecture of the Greeks is treated in a chapter full of interest, but a few misprints need correction: these are references to Vitruvius.

The illustrations of the work are admirable, especially those which have been printed from metal plates prepared from photographs by Messrs. Walker and Boutell. A fine artistic effect is attained in the

illustrations of gems where the translucency of some of the large onyx cameos is reproduced. Money has not been spared to illustrate a valuable book in a manner really worthy of it.—From J. HEN. MIDDLETON in *Classical Review*, 1892, p. 371.

CHARLES DIEHL. *Excursions in Greece to Recently Explored Sites of Classical Interest*: Mycenæ, Tiryns, Dodona, Delos, Athens, Olympia, Eleusis, Epidaurus, Tanagra. A Popular Account of the Results of Recent Excavations. By Charles Diehl (of the French Schools of Rome and Athens, and Professor at the University of Nancy). Translated by Emma R. Perkins (Headmistress of the Girls' Grammar School, Thetford). With an Introduction by Reginald Stuart Poole, LL.D., (Professor of Archeology at University College, London; Corresponding Member of the Institute of France). With nine Plans and forty-one Illustrations. London: H. Grevel & Co.; New York: B. Westermann & Co., 1893.

In reviewing this excellent book one can hardly do better than to quote the opening lines of Professor Stuart Poole's masterly introduction. "M. Diehl has done a great service to archaeological students. In the compass of a small volume he has given a clear summary of the recent discoveries in Greece. The list of contents is enough to show the largeness of the enterprise. He has only been able to accomplish it by a judicious acquaintance with the wants of the students. The matter is various, treating of no less than ten subjects; the range of time is vast, extending from the age of the earliest monuments to the fall of the Greek religion, a period of at least seventeen centuries, probably much more; yet the work is eminently satisfactory, marked by the French qualities of measure, form and elimination."

The book is not intended as a casual treatise for the benefit of the specialist, but is written for those who have an intelligent interest in ancient Greece and are not altogether ignorant of archaeology. Even those who know nothing of archeology may, however, find the work interesting, and the specialist will take pleasure in finding recent excavations so briefly and clearly described and summarized.

In one respect the English edition is greatly superior to the French. The latter has eight plans and no further illustrations, while the translation is furnished with nine plans and forty-one cuts. Several plans are smaller in the English edition than in the original, and in all plans the names of buildings, etc., are supplanted by numerals referring to a key. These are not improvements. The illustrations are not very well executed, but they add greatly to the value of the

book, especially for those readers who are not intimately acquainted with the monuments of Greek art.

The work of translation is well done. The English is fluent and clear, and the convenience of English readers is consulted in details, as when metres are translated into feet and inches. A few translator's notes refer to recent publications which were not yet accessible to the original author. In some few instances, too, M. Diehl's statements are corrected, so the *Tholos* at Epidaurus which M. Diehl said was "built perhaps by the great sculptor Polycleitus," is here referred to the younger Polycleitus and the same correction is made in regard to the Epidaurian theatre. So M. Diehl's expression, "tous les cinq ans," in reference to the Olympic games, appears in the English version as "every four years." One or two changes are perhaps a little doubtful. M. Diehl says of the crypt of the *Tholos* at Epidaurus that its three concentric passages "formed a sort of labyrinth in which no doubt certain mysterious rites were performed." In the translation the concentric passages "no doubt formed a reservoir fed by the sacred spring." The opinion expressed in the translation seems more likely to be correct (especially in view of the small size of the concentric passages) than that originally held by M. Diehl, but the words "no doubt" are at least as much out of place in the translation as in the original. Again, in speaking of the *Moschophorus* found on the Acropolis at Athens, M. Diehl says that it is undoubtedly nothing but a sacrificer, and this statement is retained in the translation (p. 95); the cut of the figure is, however, labelled "Hermes Moschophorus." A few other small slips might be pointed out, but they are really small and unimportant. Perhaps it is worth while to protest against giving in French the titles of treatises not written in that language. This is done in the list of references for chapters VIII and IX whenever a Greek work is mentioned. If the Greek title cannot conveniently be printed, why not translate it into English?

But these objections apply to petty details. In general the book is excellent, and deserves a hearty welcome from all who are interested in Greek archaeology.

HAROLD N. FOWLER.

ARCHÆOLOGICAL NEWS.

SUMMARY OF RECENT DISCOVERIES AND INVESTIGATIONS.

PAGE.	PAGE.	PAGE.			
AFRICA (CENTRAL),	254	CHINA,	256	ITALY,	272
ALGERIA,	255	CRETE,	270	SICILY,	293
ASIA MINOR,	256	EGYPT,	253	SPAIN,	321
CAMBODIA,	256	FRANCE,	309		

NOTES FROM THE ORIENTAL CONGRESS.

At the Ninth International Congress of Orientalists in London, Prof. Sayce in his address before the Assyrian and Babylonian section dwelt upon the importance of the information contained in the Tel el-Amarna tablet.

He referred also to the significance of Mr. Petrie's discoveries at Tel el-Hesy, and their connection with the Tel el-Amarna tablet. He pointed out that this tablet was found on the last day on which excavations were possible, and that it was undoubtedly but the first leaf from the Palestinian libraries which must, under future excavations, come into our possession. Those libraries would doubtless consist largely of letters, but he expressed a belief that there might be some important finds in the shape of dictionaries and perhaps geographical or historical works. He closed with the following remarks :

"The importance of this tablet lies more in what it implies than in what it actually contains. It is a proof that Mr. Bliss has found his way to the entrance of the archive chamber of the Amorite city of Lachish, and that before long the collection of tablets that were stored in it may be in our hands. The existence of these archive chambers in Canaan would explain strong Babylonian coloring, not only of the cosmogony and mythology of Phoenicia, but also of the earlier chapters of Genesis. It would be no longer necessary to suppose, as has been somewhat the fashion of late years, that the close similarity of the Biblical account of the deluge was due to Jewish intercourse with Babylonia in the age of the captivity. It would further explain the Palestinian character of the Elohistic version of the story, which shows that it already had been at home in Canaan long before it was

embodied in the Old Testament. If Babylonian legends made their way to the archive chambers of the Egyptian kings, it was because they had first made their way to the archive chambers of Palestine. The fact that the Babylonian language and the complicated syllabary of Babylonia were the common medium of intercourse in the civilized East in the century before the Exodus shows that Babylonian influence in Western Asia had then been long and powerful."

Mr. Petrie presented among other papers one on the "Past Season's Work at Tel el-Amarna." The following is an analysis of his paper on "Causes and Effects of Egyptian Geography": He said that some fresh features noticed by the author, particularly beds of high-level gravels and the collapse of enormous caverns at low levels lead to the following outline of the causes of the geography: (1) A plateau of limestone, elevated from the sea to a small extent, over which the Nile flowed with far greater rapidity and volume than at present. (2) The still farther elevation of the land, more on the East, causing a long fault under the Nile bed. This was rapidly cut out by the river, forming a gorge hundreds of feet deep. (3) This became partly choked, and the lateral valleys were cut by a great rainfall. There is no sign of aridity in Egypt until part of the human period. (4) The land was submerged, an estuary was formed some hundreds of miles up the valley, and the present foothills were produced. (5) Man entered the valley while the water was about its highest. (6) The land was re-elevated, the western desert dried up, aridity set in owing to geographical position, the Nile was unable to transport all its mud, and the Nile deposits began. The effects of the geography are: the favorable conditions for a civilization in a tropical country with a cool wind prevalent; the advantage of a steady wind opposed to a river for sailing intercourse; and the facilities of a riverway close to every place of importance. The timidity of the people is due to unforeseen raids from the desert close at hand, and there are special facilities for architecture, by the excellent stone, river transport, inundation for conveyance to any part, and want of occupation for the people during a quarter of the year. The position and nature of Egypt are peculiarly favorable for the measurement of a geodetic arc of the meridian, and it is to be hoped that the government might carry out such work."

The following resolution offered by Dr. Ward and seconded by Mr. Boscawen, will commend itself to all antiquarian scholars:

"(1) That this meeting deplores the destruction of ancient monuments which takes place in the provinces of the Turkish Empire, and

expresses the hope that the Turkish Government will find means for checking it.

"(2) That it is desirable that the learned societies and scholars of Europe and America combine to solicit the assistance of their respective governments to use their influence with the Sublime Porte to allow proper researches to be made by experienced explorers, either on their own account or on that of foreign museums, leaving the distribution of what would be discovered for future arrangement."

These resolutions were duly carried.—*Biblia*, October, 1892.

AFRICA.

EGYPT.

ASSOUAN.—Sig. E. Schiaparelli has published a memoir on the tomb opened in February for the Princess of Sweden (*R. Acad. Lincei*, S. iv, t. x). It belongs to the vi dynasty. It consists of a hall of medium dimensions, supported by four square piers cut out of the rock. The sepulchral chambers are reached by two inclined passages opened in the end wall. Two stiles in the form of a door decorate the same wall, some compositions in low relief are scattered over the piers, three long inscriptions and two standing figures of the deceased frame the entrance door on the outside. The deceased belonged to the princely family that ruled Assouan in the vi dynasty, whose names have been made known by the neighboring tomb. He was Hirkhouf, son of Ari, a great traveler over the whole African continent. He was born toward the beginning of the vi dynasty, and began his caravan journeys under Michtimsaouf I, son of Pepi I, and continued them under Pepi II. His father had done likewise before him. His expeditions were on a grand scale, patronized by the kings and resulted in large and varied importations. The most interesting to Pepi II of all the importations was a dancer named Dinka of great fame, whom the king wished to bring to court, promising him great reward and honor. M. Marpin believes that the dance for which Dinka was famous was the dance of the god Bes, and the dancer was doubtless a dwarf of the same heavy savage type as the god.—*Rev. Critique*, 1892, No. 48.

ALEXANDRIA.—The museum of Greco-Roman antiquities was inaugurated on Oct. 17 by the Khedive. It comprises already eight halls full of interesting objects.—*Chron. des Arts*, 1892, No. 34.

GIZEH.—A two years' study at Gizeh has convinced Mr. Flinders Petrie that the Egyptian stone workers of 4,000 years ago had a surprising acquaintance with what have been considered modern tools.

Among the many tools used by the pyramid builders were both solid and tubular drills, and straight and circular saws. The drills, like those of to-day were set with jewels, (probably corundum as the diamond was very scarce), and even lathe tools had such cutting edges. So remarkable was the quality of the tubular drills, and the skill of the workmen, that the cutting marks in hard granite give no indication of wear of the tool, while the cut of a tenth of an inch was made in the hardest granite rock at each revolution, and a hole through both the hardest and softest material was bored perfectly smooth and uniform throughout. Of the material and method of making the tools nothing is known.—*Biblia*, Oct., 1892.

AN AMERICAN EXPEDITION.—The International Society, of which Jacob M. Clark, C. E., LL.D. and M. A., Consulting Engineer of the Reading R. R., is the President, (residing in Elizabeth, N. J.), is organizing an exploration party to be sent out to Egypt in the Spring. One section to confine its operations to the Great Pyramid, &c., and vicinity, and another section to confine its labors to Memphis and vicinity. The section on the Pyramid will probably close its labors without any very prolonged stay. Two civil engineers, now engaged on government works under the Bombay Presidency, India, have promised to meet the Pyramid party and stay two months assisting in the work. If a Memphis section is not organized, the Pyramid section will probably take up some of the preliminary work and make a well-planned reconnaissance and survey. The Memphis section will be entirely independent and under its own management, but will receive all the assistance that may be necessary in the work of triangulation and survey. The Pyramid party propose to make some triangulations and surveys in the Fayoum to determine the standards used in the construction of public highways, &c.—From note furnished by S. Beswick, C. E.

CENTRAL AFRICA.

ZIMBABWE.—MR. BENT'S DISCOVERIES.—At a meeting of the Anthropological Society of London, Mr. Bent gave an account of his excavations at Zimbabwe, which have been already noticed in this JOURNAL (1891). The outer wall of a semi-circular temple, built on a hill overlooking the explored site, is decorated with a row of sculptured birds, standing on high stone pedestals. They all appear to belong to the same species, probably that of the vultures. Two of these birds, differing slightly from the rest, are upon circular bases. Mr. Bent believes that they are all derived from the bird of Astarte, or

that they represent the goddess herself. This is difficult to grant, for the bird of Astarte was the dove, and the vulture is a sacred bird only among the Parsees in India. In the center of the temple was an altar in whose stones were inserted stone objects relating to Phallic worship. Within the sacred enclosure are two round towers, the loftiest 34 ft. high. Before it is a platform, perhaps for sacrifices, and behind the towers a wall flanked with large monoliths. Among the fragments of pottery found are some showing an advanced state of the industry. Near the temple is a furnace for refining the gold, built with a very hard cement of pulverized granite, with a chimney of the same material. The quantity of quartz found shows that the ruins of Zimbabwe were those of the citadel of a people which worked the gold mines of South Africa. These ruins show no analogy to those of any known population of Africa; the works of art and religious monuments are entirely foreign. It cannot be determined with certainty to what race these gold-seekers belonged, or at what time they lived; but this much at least seems certain, that they were a powerful tribe that came from Arabia before the advent of Mohammed.—S. REINACH in *Chron. des Arts*, 1892, No. 16.

ALGERIA.

TIMGAD.—AN ALGERIAN POMPEII.—The report of M. Cagnat on the excavations at Thamugadi-Timgad, which was referred to in vol. VII, 4, p. 490, has been published and a summary of it given in the *Tempa* (*Cf. Chron. des Arts*, 1892, No. 28). It was built in the 1 century A. D., as a pleasure city, like Pompeii, which it resembles. Thamugadi has preserved its paved streets with their ruts, as if made yesterday; a forum decorated with numerous and monumental sculptures, around which are a basilica, shops, public meeting halls, temples, a curia. There are also: a theatre, complete in its details; fountains; an admirable system of drainage; places for public convenience; houses; a covered market, with its granite tables still in place.

Toward the S. W. the city is dominated by a temple of colossal dimensions, surrounded by spacious porticoes and placed on a hill called the Capitol. It was reached by a monumental stairway preceded by a consecrated altar. This temple, dedicated to Jupiter, is now being cleared: the immense capitals of the columns, the decorated friezes, the balustrades have been uncovered, and fragments of a colossal statue have been found.

A broad paved way, in perfect preservation traversed the city from east to west: along its course were several triumphal arches,

one of which, with three openings, built by Trajan in 100 A. D., still remains intact, and is the most complete monument of the city. This *via triumphalis* was the road from Lambesa to Theveste (Tebessa) along which was the earliest Christian monastery known, built at the close of the IV century by the disciples of S. Augustine, and now in part raised from its ruins by the Direction of historic monuments under MM. Balla and Boeswillwald.

Also noteworthy are: the immense Byzantine fort erected in haste by the troops of Solonion, successor of Belisarius in Africa, out of the ruins of the southern part of the city; some Christian basilicas; and finally, a series of constructions which have yet to be cleared.

CHINA.

A TURKO-CHINESE COIN.—Attention has been called to an unpublished coin of the Turkish epoch of Karakorum. The piece is of copper, of Chinese form, bearing two inscriptions: one in Runic characters peculiar to the reign of Yenessei, the other in Chinese characters. The coin was found in the museum of Minonssen, Siberia, and is supposed to have been struck at the beginning of the VIII century by one of the last Turkish khans, a vassal of China. At this time the Turks still employed the Runic characters.—*Revue Numismatique*, 1892, p. 192.

CAMBODIA.

SAMBAU-SAMBHAPURA.—M. Leclère, a resident of Cambodia, has sent to the *Académie des Inscriptions* (Oct. 14) an account of researches and excavations which he has carried on in the village of Sambau, the ancient Sambhapura. He has found statues, entire and fragmentary, ruins of ancient religious buildings and several inscriptions. The latter have been sent to M. Aymonier for decipherment. The city was anciently of great importance.—*Revue Critique*, 1892, No. 43.

ASIA MINOR.

HISSARLIK.—The Schliemann excavations at Hissarlik, his supposed Troy, were to have been resumed in the first week of this month, under the auspices of Mrs. Schliemann and the German Government. Dr. Dörpfeld, Director of the German School at Athens, has taken charge, assisted by Messrs. Koldewey and Brückner. The cholera scare has, however, led to the postponement of operations until next spring.—*Athenæum*, Sept. 17.

EUROPE.

GREECE.

DATES OF GREEK TEMPLES DERIVED FROM THEIR ORIENTATION.—The dates of some of the earlier temple foundations in Greece are being investigated by Mr. Penrose by an extraordinary method. A key to the date of foundation is found in the connection discovered between the orientation of temples and the heliacal rising of stars, on one of the two days of the year when the sunrise would illuminate the axis of the temple.

Owing to the precession of the equinoxes the position of a star would be considerably altered in the course of years, either in its declination or right ascension, or both, so as no longer to fulfil its function with regard to the ceremonies of the temple, for it is believed that, as in Egypt, the temples of Greece were so constructed as to receive not only the rays of the rising sun along their axes on particular days of the year, but at a date not inconsistent with archæological evidence, there was some bright star or group of stars which either rose or set very nearly in line with the axis of the temple a little before the sunrise, giving warning to the priests in time to make preparation for the function. In Egypt there are examples where doorways of temples have been altered so as to follow a star, and when this became impracticable a new temple had been built with an alteration of axis.

In Greece there are a few such examples. At Athens there are the foundations of two temples near one another, both of them dedicated to Athena, and both adapted at different dates to make use of the heliacal rising of the Pleiades.

At Rhamnous there are two temples of different dates placed alongside of one another, both evidently of the same cult. The small star group, δ, Crorū would serve heliacally both temples at an interval suitable to the difference in architectural styles. This case is spoken of with reserve for want of sufficient data.

The temple of Zeus Panhellenios at Ægina furnishes an example of an altered doorway placed awkwardly in a position favorable to the observation of the stars.

Attention is called to the importance of noting any connection between the feast days given by the orientation of the temples, and the days of the year fixed by chronologists for those feasts. The date of the Eleusinia has been fixed as on Sept. 16. The orientation of the temple of Ceres was determined by Sirius, but not heliacally; it was at midnight on Sept. 14, at the time pointed out by the orientation. A similar connection is pointed out in case of the Panathenaia, the

feast Olympia, the feast to Athena and other feasts. As there were two days in the year on which the temples would receive the rising sunbeams along their axes, and as in later times the temple's star had shifted, it was easy for the priests to change the feast day or appoint a new festival.

"In Greece, as in Egypt, the same star generally belongs to the same cult. A Arietis, the brightest star of the first sign of the Zodiac, and therefore particularly appropriate to Jupiter, agrees with the orientation of the two great temples, viz.: at Athens and at Olympia." A Virginis bears the same relation to the temples of Juno.

APPROXIMATE DATES DERIVED FROM THE ORIENTATION OF SOME OF THE GREEK TEMPLES.

No.	Star	Name of Temple	Place	Month and Day	Year of foundation B. C.	Star rising or setting
1		Archaic of Athena.	Athens	Apr. 20	1495	R.
2	Pleiades	Hecatompedon temple of	Athens	Apr. 25	1120	R.
7	Tauri	Athena				
3		Temple of Athena at Sunion	Sunion	Oct. 20	1125	S.
4	Sirius	Temple of Ceres, Eleusis, for midnight mysteries	Eleusis	Sept. 14	1800	R.
	Formalhaut	The same for Sunion.	Eleusis	Nov. 18	1850	S.
	α Piscis					
	Australia					
5		The Heraion, Olympia.	Olympia	Sept. 15	1800	R.
6	Spica	The Heraion, Argos.	Argos	Feb ?	About same time	S.
7	α Virginis					
8		The Heraion, Girgenti. Zeus Olympios, Athens.	Sicily Athens	Sept. 15 Apr. 1	1180 1185	R. R.
	α Arietis	Temple attributed to Deukalion ;		Apr.		
9		Zeus Olympios.	Olympia	Apr. 3	760	R.
10	Antartes	Temple at Corinth.	Corinth	May 1	700	S.
11	α Scorpii	Zeus Panhellenios.	$\ddot{\text{E}}$ gina	May 6	670	S.
12		Nemea temple of Zeus.	Nemea	Similar	to last two	S.
13		Oldest temple at the Hieron.	Epidavros	July 27	1270	S.
14	Aquarius	Older Erechtheion, Athens	Athens	Aug. 9	920	S.
15	ξ Aquarii	Artemis Brauronia, Athens.	Athens	Feb. 21	750	R.
16	δ Corvi?	Temple of Themis, Rhamnous.	Rhamnous	Sept.	About 1150	R.
17		Temple of Nemesis, Rhamnous.	Rhamnous	Sept.	780	R.

The dates of the above list should be considered in many cases provisional and liable to amendment when more exact particulars are at

hand. The requisite data are, however, already quite complete, relating to the temples at Athens, Ægina and Sunion.

The table, as does all the research, tends to throw back the date of the first Greek temples to a period earlier than has been previously assigned, but the Olympiads began with 776 b. c., and the table assigns the date 760 to the great temple of Zeus. The year 650 b. c. has been previously assigned to the temple at Corinth, while the tables give it at 700 b. c., but this date is not certain.—*Proceedings of Society of Antiquaries*, XIV, 59.

RECENT STUDIES IN GREEK MYTHOLOGY.—Frederick Back has issued a report giving a summary of all that has been published in regard to the gods and goddesses of Greece between 1886 and 1890. It is published by Calvary. Each divinity is treated separately; all kinds of books, articles and usages are included.

INSCRIPTION CONCERNING OMENS.—In the Ἐφημερὶς Ἀρχαιολογικῆ, 1892, 1, A. N. Skias discusses the inscription C I. g. 2953 (=I. g. A. 499) relating to the omens of the flight of birds. The omen was propitious if the bird came from the right and flew straight toward the left until it went out of sight, or if it came from the left and then, turning to its own left, passed out of sight; it was unpropitious if the bird flew straight across from the left to the right until it disappeared, or if, coming from the right, it turned toward its own right.

AKTION.—THE TEMPLE OF APOLLON.—The exact site of the famous temple of Apollon, hitherto unknown, has probably been determined by M. Champoiseau in some excavations carried on by him at Cape Aktion. These excavations have brought to light important remains of several temples belonging to successive periods, evidently the temples dedicated to Apollon: also a number of inscriptions and works of art, especially the two torsos of archaic statues of Apollon now on exhibition in the Louvre. The most recent of the constructions discovered is of Roman *opus reticulatum*, and appears to have been erected by Augustus in honor of Apollon after his victory at Aktion over Antony in 31 b. c.—*Chron. des Arts*, 1892, No. 19.

AKRAIPHIA-PERDIKOVRYSI.—M. Holleaux has reported to the *Acad. des Inscriptions* the result of his recent excavations in the temple of Apollon Ptoëios during the autumn of 1891. The series of votive and decorative bronzes and of pottery formed an instructive series dating from the close of the VIII to the middle of the VI century b. c. Two bronze statuettes were found, and two inscriptions on bronze, one of which gives the name of an artist, Onasenios of Thebes.—*Chron. des Arts*, 1892, No. 14.

One of the most important discoveries is that of a socle and base of an offering set up in the sanctuary. It bears a votive inscription. A probable restoration shows that the donor was Hipparchos, son of Peisistratos, whose name had heretofore never been met in inscriptions. The offering was probably a female statue, the head of which has been found. This head bears a striking analogy to the female figures of the vi century found on the Athenian Akropolis.—*Chron. des Arts*, 1892, No. 19.

There has been found a series of decorative bronzes, which, compared with the pottery which they surround, form an instructive chronological set. At a depth of five metres, in a bed of pottery with geometrical decoration, were found some little votive animals, reproducing the primitive styles of those seen in the pottery. In the intermediate beds, mingled with broken pottery of Corinthian style, lay some very thin strips of bronze, worked in repoussé, which appeared to have been the decoration of furniture. One may see here the whole history of primitive decoration in Greece. The Oriental influence manifests itself slowly, by the introduction of Assyrian rosettes, which are mingled with the primitive animals. Then come the braid and interlaced patterns and the palm leaves. Following these are fantastic animals of oriental type, but decidedly Greek in style. Finally the human form makes its appearance; almost immediately it enters upon the legendary composition of the Greek period (Zeus and Typhon, Herakles, etc.). As bronzes were found like those at Dodona, at the Akropolis of Athens, and particularly at Olympia, where some fragments were found of Argivo-Corinthian inscriptions, M. Holleaux supposes that all these bronzes in repoussé came from the same Peloponnesian workshop.—*Ami des Monum.*, 1892, pp. 115, 116.

AMYKLAI.—In the Ἐφημερίς Ἀρχαιολογική 1892, 1, Chr. Tsountas publishes with four plates and six cuts the results of excavations on the hill of Hagia Kyriake at Amyklai. The top of the hill was occupied by a peribolos, which has been laid bare. Foundations of a semicircular structure, probably the throne of Apollo, were discovered. Remains of animals, ashes, &c., show that sacrifices were performed before this structure. That the site is that of the Amyklaion is proved by inscriptions upon fragments of pottery. A Byzantine cemetery occupied part of the hill. More ancient graves were also found in the neighborhood. Numerous small objects were found, chiefly pottery and bronzes. The pottery is of various dates and styles. The most interesting specimens are two vases of early geometrical style, some fragments of animals in Mycenean style, and some human heads, apparently of local manufacture. The most interesting bronzes are

(1) a figure of a nude female similar to that published by Perrot et Chipiez, *Hist. de l'Art*, III, fig. 629, and, like that, used as a mirror handle, and (2) a statuette of a nude male with a curious, wide-spreading crown upon his head. The right hand is gone, as is also the object once held in the left hand. Tsountas suggests that Apollo striking the lyre is represented. In the same article Tsountas publishes nine inscriptions from the neighborhood of Sparta. These are mostly dedicatory inscriptions on the bases of portrait statues. One belongs to Pompeia Polla, another to her son Tiberius Claudius Pratolaos, priest of many deities. Two inscriptions are metrical.

ARCADIA.—TEMPLES.—The Greek Archaeological Society excavating in Arcadia has discovered the remains of two temples, and near the village of Voutsa, of another building resembling the former in shape and size, but apparently not of a sacred character, as there is no trace of columns and the entrance is on one side. The first temple, near the village of Vachlia, is a rectangular construction of the Hellenic period, 9×6 metres. It is built of local limestone, and the base of the image seems to have been made to support a seated figure, probably an enthroned Zeus. The second temple, found near the village of Divritza, is like the first save that the length is nearly double. The walls disinterred stand eighty centimetres high. Besides the base for the image of the deity were found a terracotta head of Athena and disc bearing the *gorgoneion*, bronze arrowheads, and many small terracottas representing young women of the type of Kore. The temple, which may have been dedicated to Athena or Persephone, seems to have been used for worship down to a late Hellenic period.—*Athenæum*, Feb. 6.

ARGOS.—THE HERAION.—The excavations by the American School at the Heraion have not yet been taken up again, but may be continued late in the Spring.

Dr. Waldstein has issued the first *fasciculus* of a preliminary publication of the finds made last season, illustrated with eight photographic plates, two of which are devoted to the Polykleitan head of Hera. The archaic terracottas are also illustrated.

A study on the finds will be found in the present number of the *Journal of Archaeology*.

ATHENS.—ENNEAKROUNOS.—Dr. DÖRPFELD, owing to his journey in the Peloponnesos, has had to interrupt his excavations at the fountain Enneakrounos, which will be resumed during the summer. At their termination a topographic plan of the whole locality will be published.—*Athenæum*, June 18.

At the reservoir Dr. Dörpfeld found a stone which he regarded as of the Peisistratidean period, having one scoop and half of another into which an early vase found near by fitted exactly sideways. Between these scoops were small holes in the stone into which the pointed bottom of the vase fitted, showing that it was rested in them after being filled.

Dr Dörpfeld, in continuing his excavations between the Areiopagos and the Pnyx, has come across three terminal stelæ *in situ*, one of which is inscribed in archaic letters, and belongs at least to the beginning of the v century B. C., and the other two in letters of the end of the v century B. C., with the inscription "Ὀπος Λέρχης. Near these stelæ was found a small building in the form of a Π, and in front of the opening an altar. All around this building were to be seen water conduits running in different directions. These constructions evidently belong to the age before the Persian wars. It would seem that this building was a small temple or shrine, such as one would expect to find in the neighborhood of a fountain so famous as the Enneakrounos. This building, however, seems at some later time to have been supplanted by another construction, which served as a *lesche* or club for the Athenian population, as is proved by the inscribed terminal stelæ. One of the water channels empties itself into one of the three basins, the discovery of which was mentioned lately in these columns. Amongst the fragments of pottery found on the spot, one bears the name of the artist Mūs.—*Athenaeum*, March 26.

A MORTGAGED HOUSE AND AN ASKLEPIEION.—Next to the Lesche on the outside of a private house, on the side facing the street, were several inscriptions referring to several mortgages of this house during the v and iv centuries B. C.

Across the way were found the remains of a small Asklepieion in which were several pieces of sculpture, an altar, &c. These fragments of sculpture appear to be contemporary with those of the large Asklepieion.

STREET TO THE AKROPOLIS.—The ancient road leading from the Keramikos to the Akropolis recently discovered by Dr. Dörpfeld was described by Pausanias, and is the same along which the Panathenaic procession passed. The various strata are distinctly visible, and the inclination of the road is one metre in twenty. On account of the ground being lower on the north, the road is supported on that side by a bank of polygonal stonework. Close to this wall a large reservoir was found, and in two or three places the remains of an ancient aqueduct came to light, while in the rock near the Areiopagos traces of tun-

neling for a water channel appear. Putting these discoveries together, Dr. Dörpfeld is convinced that they form the termination of the aqueduct of which other portions had already been discovered near the theatre of Herodes, under that of Dionysos, and in some portions of the modern royal garden, and that all belong to the aqueduct of Peistratos, which brought water from the upper valley of the Ilissos to the fountain called Enneakrounos, near the Agora of the ancient city. In time of siege, by means of deep wells, water could be drawn up to the Akropolis from the stream running at its foot. As water is still found, it is expected that the modern Athenians will be able to restore and utilize this newly discovered aqueduct, as they have that of Hadrian.—*Athenæum*, Feb. 13; *Athen. Mittheil.*, 1892, pt. 3.

THESEION.—Excavations have been started here early this spring, within the temple, but as yet no results have been announced.

HYDRIE.—In the street of Athena have been found two *hydriæ* bearing funeral representations in relief. In one the deceased is seated, and is stretching out his hand towards his son, while his wife stands weeping between them. In the other an old man stands stretching out his hands towards his son, traces of inscription being visible above them. A fine fourteen-rayed *anthemion* and several *stelæ* were dug out at the same time.—*Athenæum*, Feb. 6.

PEIRAEUS.—The remains of an ancient private house have been discovered at the Peiraeus near the ancient theatre. It consists of three divisions, viz., the *πρόθυρον*, the *αὐλή*, and the *στοά* running round the latter. In the course of the excavations portions of a square mosaic pavement were observed in the atrium. There are *anthemia* in each corner of this mosaic, and nearer the centre is a large circle within which is a large head of Medusa. The head, sixty centimetres high, has abundant hair, and on the forehead two wings, like those of the *petasos* of Hermes, and is flanked by serpents. The inscription which runs round it is a reproduction of verses 741-2 of the fifth book of the Iliad, describing the Medusa on the shield of Athena. In the same ruins was found a terracotta antefix bearing in the centre a Gorgoneion, but dissimilar from the above, as it is of savage and repulsive appearance, with the tongue hanging out of the mouth.—*Athenæum*, Apr. 16, May 7.

DECREES IN HONOR OF EUPHRON.—In the Ἀρχαιολογικὸν Δελτίον, June-July, 1892, Dr. H. G. Lolling concludes his discussion of the "decree of the times of the thirteen tribes," and publishes two other inscriptions. The first is a decree of Timosthenes, previously published by Koumanoudes, *Ἄθηνας*, VI, p. 271 ff. No. 1. Some new readings are

given, and the date (the archon Heliodoros) is fixed at a time a little before the death of Berenice in 219 b.c. The second inscription consists of two decrees in honor of Euphron, son of Adeas, a Sikyonian. The first of these, dated in the archonship of Kephisodoros (323-2 b.c.) grants Athenian citizenship, a crown, etc., to Euphron for aid rendered to Athens in the "Hellenic" (*i.e.*, Lamian) war. The second, dated in the archonship of Archippos (318-317 b.c.), states that Euphron lost his life in struggling for democracy, and that the oligarchical rulers at Athens had destroyed the stelai set up in his honor on the Akropolis and at the temple or stoa of Zeus Soter. Provision is made for the restoration of these stelai, and the cutting of the second decree, renewing the honors formerly granted to Euphron and securing them to his son. This Euphron was the grandson of Euphron, tyrant of Sikyon (*Xen., Hele.*, vii, 1, 44 ff.). Aside from its historical value, this inscription throws light upon the arrangement of the Attic calendar. The inscription was found in the continuation of the Peiraieus-Athens railway, and probably came originally from the stoa of Zeus Soter. It is crowned by a relief representing Zeus Soter, Athena, Euphron, and a youth bridling a horse.

NATIONAL MUSEUM.—RECENT ADDITIONS.—The National Museum has received antiquities of nearly all kinds, including a very great number of vases. The most interesting of these belong to the class of "Dipylon" vases. Of the other objects, the most interesting is a metope with triglyphs found in the new market in Athens. In the metope are represented two seated draped women, between whom stands a third draped woman. The seated figures have their heads bent forward and veiled as in grief.—*Αρχ. Δελτον*, March-April, 1892.

The following additions were made at a later date:

1. A marble lekythos found in Athens near the botanical garden. The relief upon it represents a seated draped female figure before whom stands a hoplite. Behind the hoplite stands an old man leaning on a staff. Behind the seated figure stands a bearded youth in himation, holding a strigil.

2.-7. Fragments of sculpture from the Heraion near Argos. All but one were found in the excavations of Rhangabes and Bursian. These sculptures have been hitherto in the museum at Argos.

8. Three gems, representing one a standing Nike, one Nike driving a chariot, one a bearded head.—*Αρχ. Δελτ.*, June-July, 1892.

The National Museum has received nine vases from Eretria found in excavations conducted by I. Lampros in 1891. One is a red-figured lekythos with a representation of a youth. He wears a chlamys, his petasos is hanging on his back. In his hand he holds a double spear.

Seven are white lekythoi. One (half white) has a representation of a draped female figure holding a basket in which are lekythoi, tainiai and garlands. The others represent groups of mourners or visitors at tombs. The ninth vase is a so-called *σένοντα* (*ōros*), with red figures. On the left is represented a building with Ionic columns before which are seated and standing female figures with the inscriptions, Αλκιστίς, Ιππολύτη, Αστερόπε, Θεάνω, Θεο. On the right are Αφροδίτη, Ερως, Αρμονία, Πίθω, Κορε, Ηβε, and Ιμερός. The vessel is further adorned with a representation of Θετίς struggling with Πελευς in the presence of Ευλυμένη, Αλτίς, Μελιτη, Νεράνω, Αυρα, and Ναο.—*Arch. Δελτ.*, Aug., 1892.

CORINTH.—Excavations have been conducted by Mr. Skias for the Greek Archæological Society in the hope of discovering the site of the ancient agora. Though this result was not attained, the work has shown that the ancient structures, as well as the Byzantine buildings erected above them, have been much better preserved than was supposed. The well-preserved floor and stylobate of the court of a dwelling house that belongs to the best Greek period were discovered. These remains and the ruins of the Byzantine house built above them were so completely covered with earth that, before the excavations, not the slightest vestige of a wall was visible. From this it would seem probable that the foundations and lower portions of a majority of the buildings in old Corinth have been preserved.

DAPHNE.—The statue of good period found at Daphne, during the excavations of the Athenian Archæological Society, near the site of the temple of Aphrodite, on the *via sacra* leading to Eleusis, proves to be one of the goddess herself. The head is wanting, but the rest is well preserved.—*Athenaeum*, March 26.

The excavations of the Athenian Archæological Society at Daphne continue to furnish important discoveries. The director of the works has broken ground in three places contemporaneously, viz., on the site of the so-called temple of Aphrodite; at the half-ruined monastery of Daphne, where it is supposed existed the temple of Apollon mentioned by Pausanias; and on a site opposite the monastery of the prophet Elias, in which appear traces of some steps in the form of a *krepidoma*. These last prove to be the boundary of an ancient private cemetery, which, as it ran along the Via Sacra, enables us to fix the direction of this latter. Another *krepidoma* of four sides has been discovered in this same neighborhood, and appears to have been the foundation terrace of a small temple, which some think can be identified with that of the hero Kyamites, placed by Pausanias near this spot, and by him called *ναὸς ὁ μέγας*. Within the enclosure were two tombs, probably

of a later period, and a funeral *kalpe*. In the monastery of Daphne were discovered remains of an ancient edifice, which may have been the temple of Apollon itself, in which Pausanias saw, besides the statue of this god, those of Demeter and Kore. Amongst the remains of sculpture is a fragment of a statue of a young woman of excellent art, but unfortunately headless, which may be that of Kore. Most fruitful of all were the excavations at the temple of Aphrodite, from which it is seen that, rather than a temple properly so called, or *naós* as it is styled by Pausanias, it was a sanctuary or *tepóv*. This was entirely cleared, and before it was also found that famous wall of rough and unhewn stone which Pausanias remarks is worth seeing. It consists of a square of polygonal blocks. All around were found remains of sculpture and inscribed stones, and between the sanctuary and the polygonal wall was also discovered a piece of the ancient Via Sacra, with a stone miliary giving the distance of that place from the centre of Athens. The statues consist of figures of Aphrodite and other pieces of sculpture representing the symbols or attributes of the goddess, as the dove and the pomegranate.—*Athenaeum*, May 14.

The Δελτίον for May reports the discovery of two considerable inscriptions of the Roman period (cf. C. I. A. III, 1023, 625, 745) and two terminal cippi.

The Αρχ. Δελτ. for June-Aug. reports that the excavations have now been broken off. Before they were closed an archaic torso of a youth and two fragmentary reliefs, besides a number of short dedicatory inscriptions, were brought to light. One of the reliefs represents two seated goddesses, one of whom holds a small Eros in her hand.

DELOS.—The excavations of the French School in Delos have resulted so far in the discovery of the *skene* of the theatre and of its entrances.—*Athenaeum*, Nov. 12.

Excavations under the direction of M. Chamonard were carried on for a short time in the summer by the French School. Part of the entrance to the theatre was uncovered. Near the theatre a Roman house was excavated in the wall of which was found a Greek pedestal with a dedication to Apollon, Artemis, and Leto.—*Αρχ. Δελτ.*, June-Aug., 1892.

ELEUSIS.—Mr. Philios has continued his work both in the sanctuary and on the Akropolis. In the former, beneath the large propylaea, he brought to light a spacious cistern, and on the latter discovered portions of the encircling wall.

EPIDAUROS.—Excavations by the Greek Archaeological Society, under Mr. Kabbadias, were continued in Epidauros. In the northern part

of the large square northeast of the temple of Asklepios foundations of "poros" were found, belonging to a small temple, probably the Aphrodition mentioned in an inscription.—'Αρχ. Δελτ., May.

A number of inscriptions have been found, one of which is an exact copy of the one published 'Εφ. Αρχ. 1883, p. 25, No. 1. Another is a catalogue of Θεαρδόκοι of Asklepios for Akarnania and Italy. Several inscriptions bear artists' signatures, among them those of Xenophilos and Straton (Loewy, *Inschr. gr. Bildhauer*, No. 261, 262, Paus. II, 23, 4). The building to the southeast of the temple of Artemis appears to have been one of the stoai built or repaired by Antoninus.—'Αρχ. Δελτ., June-Aug., 1892.

The report in the *Athen. Mittheilungen* (1892, 3), says that the large gymnasium, in the court of which is a covered Roman theatre, was entirely cleared. The theatre is larger than was heretofore supposed. Instead of occupying only one corner of the court, it fills about two-thirds of it. The interior of the large building between the gymnasium and the Artemis temple, of which only the outer wall had previously been laid bare, was also cleared. This brought to light a large court with several stone benches, a hall with two aisles, several chambers, and a small bathroom. Finally, in the northeastern part of the sanctuary there were found still more *exedrae*, bases for statues and for dedicatory offerings, and the foundations of some buildings of unknown purport.

GYTHEION.—**TOPOGRAPHY.**—In the 'Εφημερὶς Ἀρχαιολογική, 1892, 1, 1, A. N. Skias discusses the topography of Gytheon, at the place now called Ηλεκκητόν (described by Weil, *Mittb. Athen.* I, p. 151 ff.) is a rude inscription Μόρπα Διὸς Τερ(α)στι[ου]. This is believed to mark the boundary of the sanctuary of Zeus Kappotas. An investigation of the harbor of Gytheon, shows that the shore has receded greatly in comparatively recent times. The ancient harbor must have been close to the foot of Mt. Larysion, protected by the island of Kranae.

KARYSTOS.—In executing some works at the port of Karystos in Euboia several remains of ancient constructions have been found, together with fragments of sculpture and inscriptions. Numerous blocks of *poros lithos* show cavities which prove they were fastened together by iron staples fixed as usual by molten lead. These stones formed part of the ancient harbor. Near them were found marble columns and lumps of lead, with fragments of sculpture representing in relief a man holding a horse by the bit. Another piece consisted of a marble *bathron*, or pedestal for a statue, in the shape of a prism of four faces, one of which was broken off. Most of the reliefs with

which it was decorated, and which represented nude figures, are in a very ruinous state. The best preserved is one of the narrow faces representing a woman standing in the act of saluting another woman before her. The various inscriptions brought up from the bottom of the sea by the dredge are, for the most part, dedicatory and sepulchral, and belong to the period of the Roman occupation. One of them bears in Greek and Latin the name of a certain *L(ucius) Marcius Ner(o?)*; another forms the dedication of a statue of Artemis, erected by a woman of the name of Phrynis, priestess of Artemis and Apollon.—*Athenæum*, May 6.

LAURION.—At Laurion a relief has been found amongst the *scoriae* representing a man seated on a cushion and bearing in his left hand a *caduceus*, while with the right he is touching the shoulder of a woman who stands inclined before him. On the left stands a nude youth, holding in his right hand a vase, and in his left some circular object. The boy's eyes are fixed on the man.—*Athenæum*, Feb. 6.

MYKENAI.—In the excavations now being conducted at Mykenai some fresh tombs have been dug out, in which many objects of importance have been found. Amongst them are some stone reliefs, very ancient arms, and some gold and silver coins. The inscriptions found, which would have a unique value as belonging to this place and date, are unfortunately illegible.—*Athenæum*, Nov. 12.

Mr. Tsountas continued throughout the summer the work which has yielded such rich results. The interior of the Akropolis was still further cleared, and a large building of the Mycenaean period that belongs to the palace already known was discovered. A large cistern hewn in the rock was also brought to light. After the *dromos* of the second vaulted tomb had been completely cleared, and a third vaulted tomb to the northwest of the Lion gate had been excavated, Tsountas had the good fortune to discover a group of hitherto unknown rock tombs.—*Athen. Mittheil.*, 1892, pt. 3.

In the Εφημερίς Ἀρχαιολογική, 1892, 1, Chr. Tsountas publishes the following inscription from a circular basis found between the Lions' gate and the "tomb of Klytemnestra." This is evidently part of a longer inscription.

αἱ μὲ δαμοργία εἴ, τὸς λαροντά-
μονας τ[ὸς ἐπε]ρσέ τοῖσι γονεῦσι
κριτῆρας ἔμει κατ(r)ὰ φερεμένα.

The hieromnamones of Perseus are to act as judges "for the parents," probably in cases of doubt concerning contests of children.

NAUPLIA.—Thirty tombs have been excavated on the southern slope of the Palamidi by the Greek Archæological Society under the direction of B. Staes. A vase of Mycenean style was found bearing on each handle a carefully engraved sign resembling the letter H, with a barb at the top of each upright line.—*Αρχ. Δελτ.*, August, 1892.

OROPOS.—INSCRIPTIONS.—In the Έφημερίς Ἀρχαιολογική, 1892, 1, B. I. Leonardos continues the publication of inscriptions (Nos. 61–90). These are mostly decrees of proxeney. No. 70 records a decree of the Oropians directing the Archon, the Polemarchs, and the Grammateus to take part in the sacrifices to the Ptoan Apollo. No. 80 is a metrical dedicatory inscription, with the signature of Xenokrates the Athenian (Löwy, *Inschr. gr. Bildh.*, No. 135^a ff.). These inscriptions are for the most part new, though several have already appeared.

RHAMNOUS.—The more recent excavations were centered on the citadel, where the foundations of numerous houses were brought to light. One of them, square in form, contained several bases of statues with inscriptions which show that there was at Rhamnous a temple of Dionysos Lenaios. A fragment of a decree also mentions a theatre.

The temple of Amphiaraos has been cleared. It is placed on an elevation to the left of the road leading from the temple of Nemesis to the citadel. There were found two headless statues, of ordinary workmanship, and fragments of bas-reliefs offered as ex-votos in gratitude for cures, similar to those found at the Asklepieion at Athens.—*Chron. des Arts*, 1892, No. 9.

SIKYON.—In the theatre Dr. Dörpfeld has thought to recognize the foundation of an old wooden proscenium in the structure laid bare by the excavations of the American School in December, 1891. This structure which, before the excavations, was hidden by a Roman wall of earth and small stones, consists of a row of blocks of *poros* stone, in which are cut at comparatively regular intervals large and small holes. These holes, according to Dr. Dörpfeld, must have served to secure the wooden columns and *pinakes* of the proscenium.

STRATOS.—The Αρχ. Δελτ. of May, 1892, contains a preliminary report of the excavations conducted by the French School at Stratos, in Akarnania last spring. These works have brought to light a temple which before was scarcely visible, with in front a building in the form of a *stoa*, belonging probably to the agora. The temple is a Doric *peripteros*, and resembles in form the so-called Theseion of Athens. Its length is 34 metres, its breadth 18 metres 20 centimetres.

Upon the *krepidoma*, which is preserved entire, are still to be seen the bases of most of the columns. Before the entrance of the temple is an open space, in the middle of which stood the altar, as in the temple of the Pythian Apollon in Gortyna. Scattered around the altar were found numerous fragments of votive offerings, consisting of small broken terracotta idols, and remains of ancient sacrifices. Some inscriptions, consisting of decrees, as also a list of proper names, were found in the same place.—*Athenaeum*, Nov. 19.

This was the most important in ancient times of all the towns of Akarnania, was the chief place of the Akarnanian League until the town was conquered by the Ætolians. It was originally sought for by Heuzey ("Le Mont Olympe et l'Acarnanie") in the ruins near the modern Pelegriniatsa. Since Bursian wrote on the subject we have been more inclined to identify it with the great assemblage of ruins in the Vlach village of Sorovigli. Lolling and Oberhammer adopted this idea, and M. Joubin undertook to excavate. Several terracottas were first unearthed and some inscriptions.—*Athenaeum*, July 9.

CRETE.

A CORPUS OF INSCRIPTIONS.—Prof. Halbherr, having received encouragement from his friends in Crete, is about to publish a complete *corpus* of Cretan inscriptions. It is to appear under the auspices of the Syllogos of Candia, and the commentary will be in modern Greek. Prof. Comparetti, who is preparing also an Italian edition of the archaic inscriptions of Crete for the *R. Acad. dei Lincei*, will edit the archaic inscriptions of the *corpus*, his commentary being translated into Greek by Halbherr.

Prof. Halbherr spent some time in England the past autumn in making copies of the Cretan inscriptions at London, Oxford, and especially Cambridge.

CHRISTIAN ANTIQUITIES.

PORTRAIT OF LEO VI.—M. Schlumberger, the Byzantine scholar, recently received from Chios a photograph of a Byzantine ivory plaque of the close of the ix century whose reliefs are of unusual historical interest because they give us the portrait of the Emperor Leo VI, the father of Constantine Porphyrogenitus, in the year 886, at the age of twenty-one, on his advent to the throne. It is one of the very few portraits of Byzantine emperors of the ix and x centuries. On one side the Virgin, attended by S. Michael, crowns the emperor; on the other is Christ between Peter and Paul. A long inscription gives the emperor's name and prays for divine blessings upon him.—*Ami des Mon.*, 1891, No. 28, p. 386.

BYZANTINE AMULETS.—M. Gustave Schlumberger presented to the *Acad. des Inscr.* a number of amulets in metal and hard stones belonging to the early Byzantine period. They were hung about the neck to ward off maladies and sorceries. All of them bear the name and effigy of King Solomon, in the beneficent role of exterminator of maladies and sorceries. He is represented on horseback, his head encircled by a nimbus, in antique military costume, tilting at full gallop with lance at rest against a female demon representing malady, crouching on the ground. The inscription on each of the amulets is an invocation against sickness, which is charged to flee, under penalty of being pursued by Solomon, to whom a beneficent angel, such as Uriel and Arlaf or Archaf, is often added: "Flee, thou detested one, for Solomon and the angel Archaf pursue thee."—*Chron. des Arts*, 1892, No. 11.

A GOLD BYZANTINE COIN.—Byzantine numismatics present a complicated study in the coins of the Emperor Theophilus and his family. This emperor succeeded his father in 829, and the following year married Theodora. Nine years after a son was born who succeeded Theophilus as Michael III. Besides this son, there were, according to the chroniclers, five daughters born in the following order: Thecla, Anna, Anastasia, Maria, and Pulcheria. Theophilus died early in 842, leaving, as the chroniclers state, only this son Michael about six years old. But if we study Sabatier's *Histoire de la monnaie Byzantine* we shall find that this statement is not corroborated by the numismatic testimony of this reign, in which we find a number of coins with the figure of Theophilus, bearing on the other side either an Augustus named Constantine, represented alone, or a bearded Michael with this Constantine, two princes about whom history is silent. This Michael should not be confused with the future Michael III, who is represented on the coin as an infant beside his mother. Following Sabatier then, we must admit that Theophilus during his reign had two colleagues, who were either sons or brothers. The published coins of this reign are classified by Sabatier as follows: coins of Theophilus alone, coins of Theophilus with the unknown Michael and Constantine, coins of Theophilus with Constantine only, and coins of Theophilus with his son Michael III. To these must be added a fifth class, coins of Theophilus with his wife and three eldest daughters. From this a number of inferences may be drawn. The future Michael III was not born when the coin was struck, or he would have been represented. The date of the coin must be fixed at about 832, for the following year the fourth daughter, Maria, was born. Then, as the emperor married in 830, we must infer that the second and third daughters, who appear

on the back of the coin, were twins. We may infer also, that during the period between the birth of Maria, 833, to that of Michael III, 839, the empress gave birth to her first son, the Constantine of the coin mentioned above, who must have been born, associated with his father in the empire, and died before the birth of his brother Michael, otherwise they would have figured together on the coins. As to the Michael who appears on several of the coins, we must conclude that he was either a brother or an ascendant of Theophilus.—*Revue Numismatique*, 1892.

ITALY.

VARIOUS TYPES OF THE BRONZE AXE.—In the *Revue de l'École d'Anthropologie* for Oct. 15, 1892, M. A. de Mortillet publishes a paper entitled *Évolution de la Hache en bronze en Italie*, in which he studies all the types of ancient axes found in Italy. He classifies the various forms in chronological order and seeks to determine their connection. His general conclusions are: (1) that the flat copper axe, although it seems to appear first is really not earlier than the straight-edged bronze axe. The latter form must be regarded as imported by those who introduced the knowledge of metals into Europe. From this type proceeds directly the type with curved raised edges (*hache à ailerons*), and after it comes the type with a raised edge at the top of the blade (*à talon*) and then, finally, the type of the axe with a socket for the handle (*à douille*). Even the later types are of early date, for there are numerous specimens from the Bolognese foundry, about contemporary with the Villanova necropolis, which is assigned variously to the period between the x and the vii century.

ANCONA.—NECROPOLIS.—In March, 1892, several tombs were excavated in the military grounds of Cardeto at Ancona, which proved to be a part of the necropolis of the III century b. c. With one exception in brick, the tombs were constructed of slabs of tufa. In one case the slabs were painted with festoons, masks and birds as in Etruscan ossuaries and on the walls of Campanian tombs of the same period. In one of the tombs there were a silver and a glass vase and a third vase of an extremely rare kind. It is the finest known example of an earthen vase, with artificial whitish *impasto*, covered with glass enamel, subjected to intense heat and decorated with mineral colors also subjected to intense heat. Such vases originated probably in Alexandria. The mineral colors are put on with the brush; the designs are linear and foliated. The study of this interesting vase gives Sig. Barnabei the occasion for a general dissertation on the subject.—*Not. d. Scavi*, 1892, pp. 80-87.

BOLOGNA (PROVINCE OF).—TOMBS OF VILLANOVA TYPE.—Sig. Brizio gives in the *Not. d. Scavi* (1892, pp. 219–224) an account of some antiquities collected by Torquato Costa, of Anzola, in Emilia. They were found on various sites in the province of Bologna, and mostly from stations of the stone age, from terramara and tombs of the Villanova type. His arrangement of them is so scientific that they are an important contribution to the ancient history and topography of the province. Sig. Brizio confines his report to the Villanova antiquities, as they help us to gain an idea of the location and density of the Italic population and of its relation to the population of the terremare and to the Etruscans. The following are the principal sites: Near Castelfranco the principal discoveries were made; at a site called Recovate only bronzes were found, one of which is similar to a bronze found in one of the Italic De Lucca tombs at Bologna. On a second site some terracottas came to light, notably the figure of a horse which served as the handle of a vase, but here also most of the finds were of bronze. At Manzolino an archaic serpentine fibula was found unlike any hitherto found in any Villanova tomb of the province. Among the objects found at Pradella was a large terracotta vase with a *crux ansata* and a five-spoked wheel in relief, which differs from anything yet known. The objects found at Anzola are few. The third site, Crespellano, is noted for having (1) a terramara with its necropolis; (2) Italic tombs of the Villanova type; and (3) Etruscan tombs of the Certosa type. On the supposition of the contiguity of the two latter groups Sig. Gozzadini in 1885 concluded that in the Bolognese province the Etruscans succeeded the Italics in their stations and that the two were so commingled as to form perhaps but a single people. Sig. Brizio found, however, that the two necropoleis were over a kilometer and a half apart.

CASTELLUCCIO.—The hill of Castelluccio, with its castle, in the commune of Pienza, region of Chiusi, has an Etruscan necropolis dating from the sixth to the third centuries B. C. which, from the comparative poverty of its contents, belongs to an *oppidum*, and not to a city. The sixth century was the period of its greatest prosperity. One of the tombs recently opened has its loculi closed with inscribed tiles illustrating the transition from the Etruscan to the Roman language; they are in rude Latin letters. The site of the *oppidum* itself has been verified at the summit of a high neighboring hill called *Casa al vento*. It was surrounded by walls built of large blocks of square stone without cement. The town was destroyed in the third or second century B. C.

Of considerable interest is the discovery that several caves in this hill were inhabited in the neolithic age; they are numerous and often in tiers, some four deep. Many are intact and will probably furnish material for the paleontological study of the Italic population of this region.—*Not. d. Scavi*, 1892, pp. 309-12.

CHIUSI.—Comm. Gamurrini reports various novelties from Chiusi in the *Not. d. Scavi* (1892, pp. 304-7). (1) A mirror with three figures: Juno, Minerva and a leaping faun. (2) Two Etruscan inscriptions, one of which is bilingual; the second being remarkable as one of the few examples of boustrophedon in Etruscan. (3) A further fragment of the bronze tablet, with the names of an Etruscan *Collegium* and on the other side the *lex repetundarum*. (4) A large *tomb* at Poggio Renzo, between the city and the lake. It is on the summit of the *poggio*, under an artificial tumulus, with a base line of about 100 metres. Here, on the east side, was the well-known archaic necropolis of Poggio Renzo analogous to other Italic necropoleis of the first iron age. On another section of the hill is a necropolis of the succeeding period with stone circles, also with the rite of cremation. The tomb newly covered consists of four large rectangular chambers. The front room communicates with the other three by a door in the centre of each wall. A cinerary urn with a relief representing the Theban fratricide, appeared to date from the third century or later, as did some fragments of Campanian vases. The rooms have flat ceilings supported on architraves cut out of the stone, and all their walls were originally covered with wall-paintings, which have almost entirely disappeared, except in the outer room, from the effects of dampness. The style, in so far as visible, indicates the first half of the third century, which is probably the date of the tomb.

A well which was cleaned was found to contain a number of Roman antiquities, especially an elegant bowl of bronze gilt.

CLATERNA-QUADERNA (EMILIA).—Several writers—such as Cicero, Pliny, Strabo, Ptolemy—speak of the Roman *oppidum Claterna*, and place it on the Via Æmilia, ten miles from Bologna, and thirteen from Imola (Forum Cornelii). It still existed at the close of the iv century, being mentioned by S. Ambrose in 393. Modern local antiquarians have always placed it near the modern site of Quaderna, near the bridge of the torrent of that name on the Via Æmilia. This identification was founded on coins, statuettes, marbles, tiles, marble pavements, etc., frequently found here. As early as 1888 Sig. Brizio had studied the site and sought the assistance of the natives in determining the limits of the space within which, during agricultural operations, there had been found traces of roads, pavements or antiquities.

It appeared as if the greater part of the ruins of the city must be, from all accounts, at least sufficiently well preserved to show their complete ground-plan. Many architectural fragments and pieces of sculpture, as well as coins, fibulae and other small objects; were preserved in the houses of this region.

In 1890 Sig. Brizio began excavations in what seemed a promising portion of the site, over a surface of 22 by 120 metres. Considerable remains of private buildings came to light, but none were completely excavated. There were found mosaic pavements, brick pavements in *opus spicatum*, quadrangular basins of tufa, wells, drains, etc. The difficulty of identifying the arrangements and uses of the structures was increased by the evident restorations, often wholesale and careless in character, which entirely changed the original plan. The emptying of a well down to a depth of 9.30 met. brought many objects to light. At 2 m. tiles, bricks and a coin of Vespasian; at 3 m. Aretine vases and marble veneering; at 6 m. a bit of an inscription in beautiful letters of the first years of the empire, probably in honor of M. Agrippa; at 7½ m. a lamp with the stamp *VIBIANI* and others; at 8 m. fragments of red vases, a silver pin, a bone stylus; at the bottom two leaden weights in the form of amphorae.

The traces of but two paved roads were discovered: one of them being a regular road, seven metres in width, the other, on account of its great width of twenty-two metres, being in all probability parts of a square. A pretty terracotta statuette of Cupid was found in many fragments. Two hundred and twenty bronze coins and seventeen silver coins came to light; of the silver coins three only are imperial, the others consular.—*Not. d. Scavi*, 1892, pp. 184–145.

CONCORDIA-SAGITTARIA.—Since the excavations in this military necropolis, noticed in the *Not. d. Scavi* for 1890, pp. 169 and 339, the results of which have been placed in the Museum of Concordia, the work has been continued only fitfully. The excavations during 1891 were reported in the *Scavi* for January, 1892. One sculptured slab is especially interesting as having a representation of the vine in relief, which can be compared to the Early Christian representations of this symbol.

CORNETO-TARQUINII.—NEW EXCAVATIONS IN THE NECROPOLIS.—Various discoveries have been made in the necropolis of Tarquinii in 1891 and 1892. The work for 1891 was closed on May 8. Between April 16 and that date several tombs were opened. April 16, a chamber tomb entirely ruined; 21, a trench tomb containing several ornaments; 24, a trench tomb with several Greek painted vases, including two Corinthian alabastra with figures of birds. Early in May two ruined

chamber tombs and one trench tomb were opened, the first of which contained gold earrings, two gold rings, a bronze bracelet, an unguent box in the form of a pig of terracotta covered with blue enamel.—*Not. d. Scavi*, 1892, pp. 40-1.

Excavations were renewed on March 20, 1892, west of the *casa controlliera* on the provincial road. All the chamber tombs found during this excavation had fallen in and had been previously visited. March 28, a trench tomb with 19 pieces of bucchera terracotta and nine Greek painted vases. Eight of these vases, with geometric decoration, belong to the category described by Gsell on p. 380 of *Fouilles dans la nécropole de Vulci*: one has a zone of five fishes; another has scales scratched and painted. March 31, under ruins of a chamber tomb were found fragments of a black-figured Attic vase of severe style (*Cf. Furtwängler, Beschr. d. Berl. Vas.* pl. IV. No. 24), whose paintings represent a banquet. It is interesting as showing the possible source of inspiration of the corresponding banquet scenes in the wall-paintings of the tombs of Tarquinii. April 8 two scarabs of archaic styles and a gold earring were found in a second chamber tomb. The carnelian scarab has a marvelously delicate intaglio of Odysseus killing the Circean stag. Between April 18 and 20 two trench-tombs were opened, each with the remains of skeletons, some vases of black bucchero and some Greek pottery—the latter being two lekythoi with bronze band on white ground and a delicate Corinthian lekythos with three zones of animals. April 22, a chamber tomb with two pieces of the decoration of a helmet representing a Seilenos head and a head of Acheloos; also a red-figured Attic amphora of 3rd quarter of V century with six male figures of ugly and caricatured types. April 28, a chamber tomb with three Greek painted vases including a Corinthian skyphos. April 25, another chamber tomb with three black-figured Attic vases of severe style: (a) an amphora with a pugilistic contest on one side and on the other two Athenian horsemen flanked by bearded men and with a woman between them; (b) a vase with dancing Seilenoi; (c) an amphora with the meeting of Herakles with the centaur *Pholos* on one side, and on the other a bearded man with his favorite ephobos.

On May 7 a *tomba a buca* or hole tomb was found which was unique in containing not merely a single painted vase serving as cinerary urn, but three: these were black-figured Attic amphorae of which two were of accurate and severe style. On one are two Bacchic scenes, and a parting scene with a quadriga. The other has preserved its cover and has on one side a standing quadriga on which stands Dionysos while on the ground beginning at the left are: Apollo playing the cithara;

Athena with a lance conversing with Hermes. A man and a woman behind the quadriga and the charioteer complete the composition. The scene on the other side represents Attic cavalry with attendants. The third amphora, not yet cleaned, seems to represent on one side a hoplite with two mantled figures and on the other a youth between two other figures: the execution seems careless.—*Not. d. Scavi*, 1892, pp. 154-58.

A PAINTED TOMB.—Sig. Mariani, who was present at the reopening of the tomb discovered on May 6, has contributed a description of it to the *Not. d. Scavi*. It is three kil. from Corneto, on the west side of the provincial road. It is beneath a tumulus, 2.50 m. below the surface of the plain. The door opens into a chamber with a roof *a schiena* (4.65 wide x 4.80 long x 2.70 high). At the further end two small doors lead into two small chambers with side benches. No objects or bones were found in the tomb. It has received the name of *tomba dei tori* and the number 29. At the height of the impost the walls which are covered with white plaster, have a frieze of white, red and blue bands, as in many other tombs of Tarquinii. The middle beam is red. Only the end wall of the main chamber is decorated. The principal decoration is between the two doors. Above is a frieze with a row of blue lotus buds alternating with red globes surmounted by crosses, and, below, a row entirely of the globes. Below the principal composition is a white meander on red ground. Above the frieze in the gable are, on the left, a chimaera with lion's body, goat's head, and dragon's head on the tail; on the right is a nude ephobos on a running red horse, behind whom is a bull. In the frieze above the two doors are two obscene scenes accompanied by two animals, a bull and a man-faced bull. Between the two scenes is an Etruscan inscription. The main composition, below the frieze, has in its centre a plant terminating in a large five-petaled flower: other plants give this the effect of a garden scene. On the left is a large cippus on a platform upon which are two young lions, one of which forms a water-spout. From the left a helmeted warrior advances with sword and lance, while from the right an ephobos on horseback slowly advances, holding a long stick in his left hand. These paintings are remarkably preserved and belong to the period of the earliest painted chamber tombs at Tarquinii, c. 500 b. c.

CORREGGIO (EMILIA).—Prof. Pigorini discusses in the *Bull. di Palet. Ital.* 1892, Nos. 1-4, the date and attribution of the contents of the pre-Roman tombs at Correggio. They consist of an urn of rude pottery containing rude funerary objects among which are especially to be noticed the ear-rings in the shape of wheels and belt plaques with a crook all of bronze.

These tombs have been attributed to the Etruscans, but Prof. Pigorini points out that although they do belong to the early iron age neither earrings nor belt plaques are to be found in really Etruscan tombs, but in the northwest, in Lombardy, France and Switzerland.

CRESPELLANO.—The commune of Crespellano in the Emilia, has given a large number of antiquities: a terramara with its necropolis, Italic tombs of the Villanova type and Etruscan tombs of the Certosa type. Villanova tombs have been found in three localities at Crespellano: at Calcara, Podere Stanga and Podere della Somaglia. Gozzadini was in error in affirming in 1885 that the Italic and Etruscan necropoleis were here mingled, and that this gave strength to the conjecture that the Etruscans succeeded the Italics in their necropoleis, and that the two races were mixed. The two necropoleis here are really quite a distance apart.—*Not. d. Scavi*, 1892, pp. 222-24.

FLORENCE.—Near to the Arco dei Pescioni the remains of Roman baths have been found. Two halls have been uncovered whose walls are covered with well-preserved mosaics. The door of the main hall which is of good artistic style has been transferred to the museum.—*Chron. des Arts*, 1892, No. 40.

S. GIOVANNI IN PERSICETO.—**ITALIC TOMBS.**—Twelve Italic tombs of the Villanova type have been opened, being part of a necropolis. The objects discovered bear the closest analogy to types found in the Benacci and Arnoldi-Veli necropoleis at Bologna. Most of the tombs were for cremation, and two for inhumation. The richest tomb in the matter of contents was No. 8 which, although for cremation, did not contain the typical ossuary. It had in the N.W. corner a most varied collection of small terracotta vases: the bronzes were extremely numerous and included a lozenge-shaped belt (Cf. Benacci, No. 543, and Orsi, *Cintur. Ital.* tav. III, No. 33), with incised spirals and projecting balls. The fibulae are in great variety; also armlets, hairpins, etc. These tombs antedate the arrival of the Etruscans.—*Not. d. Scavi*, 1892, pp. 191-199.

GREAT ST. BERNARD.—The excavations carried on during 1890 in the E. part of the *Plan de Jupiter* were reported in this Journal. They were continued from Aug. 31 to Sept. 15, 1891, and the results obtained embodied in a report to the *Not. degli Scavi* for March 1892 (pp. 63-76). The northern section of the E. part, the only section that remained unexplored, was the centre of the work. In front of the temple fifty-seven Gallic coins were found, as well as a few Roman Republican coins. The rock on which they were found is conjectured to have been the base of an altar upon which the coins were placed

as offerings by travelers. This rock was probably, before the erection of the Roman Sanctuary, the centre of the worship of the god by the natives. The coins belong to the latest Gallic period, to the first century b. c. As no imperial coins were found on the rock it is evident that the primitive altar ceased to be venerated when the temple was built. Among the objects found in the rest of the field of excavation were: a small votive bronze tablet; a larger votive tablet of a Helvetic named Carassounus; a perfectly-preserved bronze statuette of Jupiter Tonans of good art; a bronze horse; a bronze lion; a large number of small objects. The excavation of a building near the temple was commenced but not continued.

GUIDIZZOLO.—A PRIVATE CALENDAR.—An inscribed brick found near Guidizzolo contains a remnant of a calendar or record of festivals, covering the last twelve days of November, the last fourteen of December and, in the last column, the feasts of the second semester of the year. Opposite each day was a hole for inserting a thong or stick to indicate the current festival. The calendar is extremely simple and must have served for poor people, probably for some farmer. The owner appears to have had a special devotion to the goddess *Epona*, patroness for horses and mares, for he places her festival on December 18, which is a variant from the customary rule. The last column contains the festivals taken from the old official Roman calendar of feasts without adding any of the feasts that were instituted by the emperors. An examination of the details gives a date of a few years after 727 u. c. as the period of the calendar, *i. e.*, the beginning of the Augustan age.—*Not. d. Scavi*, 1892, pp. 1-13.

NAPLES.—A TOMB.—Near the church of S. Pietro ad Aram a sepulchral chamber, partly preserved, came to light. It was 2.20 m. and was covered with a tunnel vault with buttressing walls all well constructed of tufa. A sepulchral inscription of considerable length was found in the chamber.—*Not. d. Scavi*, 1892, p. 318.

SEPULCHRAL RELIEF.—The *Societa di Storia Patria*, of Naples, has purchased a sepulchral relief with Greek inscription, representing the usual parting scene. A veiled woman, with a nude boy, stands in front of a seated man. The execution is rude and the proportions poor. The inscription reads: ΠΑΚΚΙ·ΗΠΑΚΑΕΩΝ. A longer inscription is on the back. The deceased's name is Domitia, a Sicilian.—*Not. d. Scavi*, 1892, p. 201.

NOVILARA (UMBRIA).—NEW EXCAVATIONS IN THE NECROPOLIS.—In the January number of the *Not. d. Scavi* (1892, 14-19), a description was given of a bronze lance-head and two large amber fibulae found at

Novilara near Pesaro: being found beside a skeleton they proved the existence there of very ancient tombs. On the same site in 1865 there was found a stele with spiral decoration of Mycenaean type, published by Undset and now in the museum of Pesaro. Comm. Gamurrini makes an interesting report on the first excavations and the prospective importance of the excavations which would probably disclose a very early stage of civilization. It being of great interest to ascertain what relation existed between that stele and the culture represented by the tombs, an excavation was undertaken by the government in July, 1892.

On the site where the lance-head and skeleton were said to have been found there were discovered not tombs but dwellings *a fondi di capanne*, whose traces consisted in *focolari*, around which lay bones of animals, refuse, and fragments of vases, some of which are extremely interesting, because they correspond to the most primitive Italic vases. Notwithstanding the importance of these remains of dwellings of the primitive population, their systematic exploration was deferred.

The necropolis was found at some distance to the north. Its excavation was extremely fruitful. Seventy-five tombs were opened in less than a month. A complete monograph with plates will be published after the close of the work. In the meanwhile the following summary is taken from the *Notizie degli Scavi* for September, 1892 (pp. 295-304). The bodies were buried at depths varying from 1.20 to 2.35 m., but this was no indication of difference in period, and sometimes the same trench was used for more than one body. All the tombs are for inhumation, but the bodies are not extended but bent together and grouped according to the rite, which was thought to be special to the neolithic age alone, both in Europe and Asia. In some cases three bodies are superposed. In the space between the curled-up skeleton and the walls of the trench were placed the various funerary articles—the vases about the feet and head, and the arms at the sides. These objects are sparse. Among the few vases are prominent the forms of *skyphoi*, *askoi* and *kantharoi*, some of them reminding of Greek prototypes, although in all the tombs only a single vase of Greek importation was found, probably of Corinthian manufacture. One point of great interest is that these Novilara vases have absolutely no points of contact, in form, with those of the Villanova necropoli, which may be explained by the fact that the latter are usually imitations of imported metal vases, which are entirely wanting at Novilara. Bronzes are extremely numerous: especially so are the fibulae, which appear to have been entirely or almost entirely used by the women, and which are of many forms and types. Next

in frequency to the fibula is the necklace, for which the favorite material is amber. At times mother-of-pearl shells are substituted, as well as glass and bone. Similar necklaces have been found at Monteroberto. There is also a variety of neck-ornaments and nail and ear-cleaners. In the Villanova necropoleis armlets were found also in the tombs of men, but here they appear only in those of women.

There are many reasons for regarding this necropolis as contemporary with the Villanova type, but definite conclusions are reserved until the close of the excavations. Gamurrini noticed correspondences with Maritime Etruria and Latium as well as a Phœnician influence.

OLBIA-TERRANOVA FAUSANIA.—Some excavations undertaken on the outskirts of the modern village, on the slope called *Cuguttu*, resulted in two discoveries: The first was of a group of ruined constructions belonging to the Roman period, as there were found coins of Maxentius, Constantine and Valentinian. The second was of part of a necropolis as yet only partly explored. Three hundred and seventy-five tombs were opened: they had gable-roofs made of tiles arranged in rows, similar in form and arrangement to many others found in the plain of Olbia. Worthy of note is a series of eighteen tombs at the west angle of the polygon enclosing the entire group, which are important because they belong to the type of terracotta amphoræ. They are about two metres long and measure 55 cent. at the mouth. Each amphora ends in a semi-spherical calotte on which is placed a small cone. These tombs are similar to those discovered near the ruins of Tibula and to some found in the necropolis of Sfaks (Africa). The singular part of the necropolis is a heavy uninterrupted stratum of ashes under the level of the tombs. From several considerations it would appear that the necropolis was confined to mariners.—*Not. d. Scavi*, 1892, pp. 214-217.

ORBETELLO.—Prof. Milani, Director of the Etruscan Museum at Florence, has begun a campaign of excavations in the ancient Etruscan city of Tlamon (now called Talamone), in the Tuscan Maremma, near Orbetello. Some years ago remains of a terracotta frieze belonging to a temple, and like that of the Etruscan temple of Luna, came to light in this locality, and the object of the present exploration is to lay bare what remains of the temple with its figured frieze, and also to examine the nekropolis.—*Athenæum*, April 28.

ORNAVASSO.—**DISCOVERY OF A PRE-ROMAN NECROPOLIS.**—Near the railway line Novara-Domodossola, one kilom. N. of Ornavasso, a necropolis has come to light, of which 165 tombs, all for inhumation, have been opened. They are trenches lined with unmortared walls of rough stone slabs. The body rested on a sand bottom: beside it were arms; at its feet pot-

tery, metal vessels and the rest of the funerary apparatus. They were then filled with earth up to the level of the rude wall (c. 50 cent.) and then with stones and earth. The orientation was from N.W. to S.E. Some tombs contained from 25 to 30 objects; others none. The richest lay together, the poorer in other groups. Among the arms are long and heavy two-edged swords, sometimes with brass scabbards very similar to those discovered at La Tène in Switzerland. Twenty-six of these have been saved. There were also lances of the same type, axes, large knives, etc.; iron utensils; personal ornaments, including fibulae of iron, bronze or copper and silver. These fibulae are especially of the type with wide arc and double fastening with spirals varying from 19 to 50. There are also armlets and bracelets of silver, silver rings of many types and earthenware objects. The objects of copper and bronze were badly oxidized but some vases with handles of elegant shape were preserved. Especially remarkable are seven silver, almost hemispherical, cups with feet. The pottery is numerous and varied, some of fine earth and well glazed and painted. Some bear the artist's name; in others names have been scratched after baking. Of the coins the greater part belong to private families and the last three centuries of the republic. There is a series extending from 520 to 700 u. c. Especially rare is a denarius of Gaius Numitor. There are also some Gallic and barbarous coins.

A similar necropolis of which some 50 tombs were examined was found at a distance of about 250 metres.—*Not. d. Scavi*, 1892, pp. 293-295.

ORTUCCHIO (MARSI). — CYCLOPEAN WALLS AND CHRISTIAN REMAINS. — In the *contrada* of S. Manno, territory of Ortucchio, there have been found many fragments of vases, increasing toward the summit of the hill, on which is a small table-land. On the sloping side is a long tract of polygonal wall of an early date, complete over a length of over 400 metres. In the Middle Ages a church of S. Manno and a monastery (Cistercian?) were erected on the site.—*Not. d. Scavi*, 1882, p. 207.

PISA—ANCIENT REMAINS. — Sig. Bottari has found among the foundations of his house remains of Roman structures, of sculptures, terracottas and coins of the late Roman period: a few of the coins, however, go back to the beginning of Pisa's relations to Rome at the end of the third century b. c. A portion of a Greek red-figured vase is especially interesting. It belongs at latest to the fourth century b. c. and is almost decisive in favor of the existence of Etruscan tombs in Pisan territory, which has been quite generally denied.—*Not. d. Scavi*, 1892, pp. 147-154.

PESARO.—AN EARLY NECROPOLIS.—Near Pesaro Prof. Gaumurini has come upon an Etruscan cemetery of about the eighth century b. c., and so far has exhumed 80 skeletons, all of which are of great size, the bodies ranging from 5 feet 11 inches to 6 feet 6 inches. They were all found lying in a crumpled up position on their right sides; the teeth are even now strong and white and remarkably sound. The skulls are dolichocephalous. Lying beside the bodies were many amber and bronze ornaments.—*Biblia*, October, 1892.

PITIGLIANO.—On the heights of Poggio Buco, near Pitigliano, province of Grosseto, is a table-land which is the site of a considerable town. The necropolis is to the east. Its tombs are in the form both of trenches and chambers, in great numbers and usually ruined. Some are in two rows. A loculus is often opened over the entrance and closed with a slab of tufa. Other loculi are opened in the sides. The roof of the chamber usually has a central beam and cross-beams: it also has the funeral bed and bench. One tomb had six chambers. Among the pottery there is a predominance of cups of blackish bucchero with high handles, some of which have broad striations worked by hand. There are also many cases covered with white clay with red geometric decoration; some vases are from the islands of the archipelago, and some are bucchero of the last period, worked on the wheel.—*Not. d. Scavi*, 1892, pp. 260–261.

POMPEII.—Two medallion portraits of Virgil and Horace have been found painted on the wall of a house of modest style. The portraits are apparently fanciful, but are interesting from their resemblance to miniatures of these poets placed at the beginning of their MSS. during the XII and XIII centuries, showing that the latter were based on originals of the imperial period. This point was brought out by Gaston Boissier before the *Acad. des Inscriptions*.—*Chron. des Arts*, 1892, No. 28.

The correspondent of the *Athenaeum* at Naples writes:

"The last excavated house in Pompeii is truly one of the important ornaments of the buried city, being extremely large and spacious. It has sides to three streets, the last one being, however, still unexcavated, as it lies under private property, which must be expropriated and purchased before the chief door can be laid bare. But the atrium, the garden and the colonnade, with many side rooms, and a series of bath rooms, which were still building when the eruption which destroyed the town took place, are all excavated, and the finding of such a fine house at this end of Pompeii would lead one to suppose that, should the digging out of the street it faces be continued, other similar places would be found. The principal things to be noticed in this house are

the tall columns of the atrium, which were found fallen and lying in pieces, but have now been re-erected. There are four of them, 24 ft. high, with elaborately worked-out Corinthian capitals. The colonnade or peristyle round the garden is excellently preserved; the columns of the front side are higher than the rest, and on one of them is an inscription scratched in the year 60 n. c. showing that the last painting and decoration of the house took place *before* and not *after* the earthquake of 63. In the garden were found interesting figures in earthenware of two crocodiles, a frog, and a toad, which have now been removed to the museum at Naples. Other very interesting objects still remain in the closed room to which things are removed before being sent to Naples, and I obtained a view of them. They are bronze ornaments, about 6 in. in length, in the shape of the beak of a ship, the head of a crocodile making a central part. The places where these ornaments, or probably ornamental hooks for fastening chains or something, were suspended, are still to be seen at the back of the atrium. Then there is a water spout in the shape of a boar's head, also in bronze, of excellent workmanship and great freedom and vigor of design, a beautiful little object. The frequent occurrence of the crocodile in the ornaments of the house will possibly cause it to be called the House of the Crocodile. The frescoes in the rooms are interesting, and parts in beautiful preservation.—*Athenaeum*, Nov. 12.

EXCAVATIONS IN INSULA II OF REGIO V.—A house has been brought to light in this region which is remarkable not only for the richness of its construction but for its unusual preservation. It is reached through an elegant atrium with a colonnade of stuccoed tufa and with delicately carved Corinthian capitals. It is possible to reconstruct, from the fragments found, the columns in their primitive proportions. The atrium is followed by a peristyle formed by channelled columns of tufa which are stuccoed only half way up. Its architrave is decorated with elegant stuccoes having figures on both sides.—*Chron. des Arts*, 1892, No. 29.

The large house the beginning of whose excavation was reported on p. 29 of the *Not. d. Scavi* for 1892, was still further explored, especially the chamber on the right of the corridor next to the tablinum of the neighboring house. The month of May was devoted to this work, and many small objects of minor importance came to light.—*Not. d. Scavi*, 1892, pp. 202-4.

ROME.—AElian BRIDGE.—In constructing the embankment on the left bank of the Tiber where previously was the Piazza del Ponte the ramp of the ancient Aelian bridge came to light along a length of 26.40 metres. The bridge, as it at present stands, has three large arches

of equal span and three minor arches, two on the side of Castel S. Angelo and one toward the Campo Marzo. The excavations have shown that the bridge originally had not seven arches, as was supposed from Hadrian's coin, but probably nine, for two more small arches have come to light toward the Campo Marzo. The ramp is built entirely of travertine. The smaller arch is three metres wide, the larger 3.50 metres. Three pilasters decorate the front. The total width of the bridge 10.95 met. An early mediæval and an early Renaissance pavement were found over the ancient.—*Not. d. Scavi*, 1892, pp. 231-2.

Comm. Visconti, in his notes in the *Bull. arch. com.* 1892, pp. 263-5, notes some further facts concerning the bridge. The newly-discovered arches rested on a gigantic substructure of peperino and were flooded only by an unusual rise of the river. The last of the two arches has two buttresses. The medal of Hadrian in Vienna and in Paris which has five arches, is now proved a forgery.

ANCIENT DRAINAGE.—At about four metres from the basilica of S. Maria in Cosmedin, at a depth of some two metres below the present pavement, there has come to light a network of very ancient drains belonging certainly to the kingly period. The part thus far explored consists of two large curvilinear canals, unequal in size, at whose head are two minor transverse ones. The two large canals meet at an acute angle, and the single canal thus formed continues toward the Tiber, diverging from the Cloaca Maxima and ending somewhere near the ancient Pons Sublicius. The construction is entirely of tufa, while in the Cloaca Maxima Alban, Gabine and Tiburtine stone was mixed. This system of drainage, independent of the Cloaca Maxima and anterior to it, was probably constructed by Tarquinius Priscus to carry off the drainage of the broad tract of the Circus Maximus and the greater Velabrum, including the ancient Forum Boarium.—*Bull. arch. com.*, 1892, pp. 261-3.

MOSAIC PAVEMENT.—In *Reg. XIII* opposite the streets of S. Sabina and S. Maria del Priorato a number of brick constructions came to light. In one of the rooms was a large mosaic pavement: among the compositions represented in it are Orpheus charming the animals, and a centaur attacked by wild beasts and striking at a tiger with his lance.—*Not. d. Scavi*, 1892, p. 314.

A CIRCULAR TEMPLE.—In a previous number of the Journal a description was given of a tufa platform discovered in demolishing the Apollo theatre in Via Tordinona, upon which platform at a later date a small circular temple was erected, in whose centre was a marble altar decorated with festoons and masks of excellent sculpture of the time of Augustus.

Further details have since then been ascertained. On the tufa platform, whose width was 13.70 metres, beside the remains of a discontinuous circular portico or peristyle, of horseshoe shape, there came to light portions of the base of a circular temple, 4.20 metres in diameter. The peristyle had an outer diameter of 19.70 m. and an inner diameter of 11 m.; it was built of blocks of peperino on which the traces of the columns remain. The small temple was within this peristyle. A number of architectural and decorative fragments belonging to these two structures have been found. The following measurements for the portico result: diam. of columns, 0.365 m.; interaxis, 1.80 m.; intercolumniation, 1.44.—*i. e.*, four diameters. The base and capital are Ionic. The architecture of the tempietto, on the other hand, was Corinthian.—*Not. d. Scavi*, 1892, pp. 110–111.

A VILLA OR BATHING ESTABLISHMENT.—At the ninth mile on the Via Flaminia Sig. Piacentini has discovered the ruins of an ancient building, either a thermal establishment or a villa with an elaborate heating apparatus. It is a sumptuous structure dating from the second century, with restorations and enlargements in the third and fourth. The original building, however, dates from the first century as shown by some walls in *opus reticulatum*, and it is conjectured that the building may have been a dependence of the famous villa of Livia *ad galatinas abas*, in which was discovered in 1863 the well-known painted chamber and the fine statue of Augustus now in the *Braccio Nuovo* in the Vatican. The thermal fittings are still found in the walls and pavements. The most important parts are the finely preserved mosaic pavements, of which seven are described in the *Scavi*.—*Not. d. Scavi*, 1892, pp. 112–115; *Chron. des Arts*, 1892, No. 14.

Some of the mosaic pavements are in black and white in ingenious and varied designs. Two are very remarkable both for subject and coloring. One of these is the head of Medusa surrounded with foliage and flying birds. The other belongs to the Egyptian style; in the center is an adoration scene; the god is the king, with the *uræus* on his head, and is seated on a throne; he offers a cake to the serpent which is coiled about a sort of vase resembling the mystic cistus; on the left a personage standing erect, painted all in green, offers a bird to the same serpent. A cartouche without inscription figures below.—*Amis des Mon.*, 1892, p. 118; *Not. d. Scavi*, *ubi sup.*

In the *Bull. Arch. Com.* (1892, pp. 160–174) Prof. Marucchi has published a paper entitled, *Di un pavimento a mosaico con figure Egizie scoperto presso la Via Flaminia*, illustrated by a colored plate of the Egyptian mosaic. In this article Marucchi treats of the site and general features of the building discovered, and then describes the mosaic in

detail. He regards it as belonging to the class of mosaics imitated from Egyptian tissues: the Egyptian origin appears, for example, in the prevalence of blues. The date of all the mosaics appears to be the second century and the time of Hadrian. The scene portrayed on the mosaic is a varient on the usual adoration scene in the Egyptian temples. Marucchi regards the two figures as those of a priest and priestess of Isis, with the possibility that the female figure represents Isis herself.

PANTHEON.—NEW DISCOVERIES.—A leakage in the dome of the Pantheon led to the erection of a scaffolding between the high altar and the tomb of Victor Emanuel. The removal of the wet plaster led to the discovery of three arches corresponding to the intercolumniations of the chapel below. This being quite different from Piranesi's design after the cleaning in 1747, the ministers granted the request of the Director of the French School for an investigation under the direction of M. Chedanne.

It is already plain that the construction of the dome was commenced in horizontal courses of brick joined by a *malta* of very tenacious black *pozzolana*, and set with an outward slant of 10 per cent. The arches incorporated in the mass of the dome at its impost serve to divert the weight from the intercolumniations of the lower section, determining a vertical continuity of structure from the columns to the dome. Samples of bricks taken from many parts of the arches dated from the time of Hadrian.—*Not. d. Scavi*, 1892, p. 88.

We take the following from the *Chronique des Arts* (1892, Nos. 18, 19 and 23):

During the past winter M. Chedanne, a young French architect, pensionnaire of the Académie de France in Rome, has been investigating the construction of the Pantheon with startling results. As soon as the importance of his investigations became apparent he received every assistance from the minister of Public Instruction, and the entire structure from its foundations to the summit of its dome is being studied by him by means of excavations and scaffolds. He has found a complete system of fundamental arches, at the base of the dome which appear not to have been previously known. The bases of these arches correspond to columns which have been regarded as a faulty parasitic decoration. In these arches, which are the basis of the structure, are found bricks with the stamp of Hadrian. From not recognizing the fundamentally structural character of these arches, the architect who carried on the restorations in 1747 injured the vault and caused cracks by cutting into this skeleton. Within the circular wall is a complete system of buttresses. It appears evident that the circular structure

was either begun by Hadrian or entirely reconstructed by him. At present researches are being made in the foundations in order to ascertain whether the temple in Agrippa's time was not square. MM. Beltrani and Sacconi, deputies and architects, have been delegated by the minister of Public Instruction to assist M. Chedanne.

The examination of the sub-soil is made extremely difficult by water, and the loftiest scaffolding does not reach the opening in the dome.

On the inside of the circular wall there has been noticed a system of flying buttresses, and at a depth of two metres below the actual paving, layers of marble have been discovered and bits of a paving of beautiful antique marble. It is well known that in front of the edifice six or seven steps, to-day covered by the soil, lead up to the porch, which bear the inscription of Agrippa. It is necessary, thence, to descend two metres into the interior of the monument. It will be of interest, now, to learn whether we have here a subterranean hall, a bath, or the cellar of a square temple.—*L'Ami des Monuments*, 1892, No. 30, p. 120.

Prof. Lanciani has contributed to the *Bull. Arch. Com.*, 1893, pp. 150–159, an article entitled *La Controversia sul Pantheon*. He shows that the fact of the Pantheon being in its circular portion entirely the work of Hadrian was already known, though needing confirmation. The fire of 110 is shown to have necessitated not a repair but a complete reconstruction. The main problem is: did Hadrian respect the architectural forms of Agrippa or did he, as has been recently asserted, change the ground-plan of the structure from square to circular and even change the axis. Sig. Lanciani pronounces emphatically against both hypotheses. The necessary foundations for the supposed square building are entirely wanting, nor have any traces of such a superstructure been found. Besides, the best proof is the ancient pavement found a couple of metres below the present. If it were that of a square cellar, it would be perfectly flat, whereas it is inclined toward a centre, thus proving that it belonged to a circular structure. The æsthetic difficulty raised by the dissonance in the lines of portico and the circular structure, is met by the observation that the circular structure was so completely masked as early as the time of Hadrian as to be entirely invisible.

MUSEUM OF PAPA GIULIO.—In this museum a new hall has been inaugurated, containing the sepulchral furniture of two necropoli near the ancient Falerii. One of them belongs to the period when painted vases were already being brought from Greece to Italy. The second proves the existence at a very early date on this site of a centre of Italic population of unusual importance attended by a necropolis of trench

tombs—*tombe a fossa*—and of vases in the pure Villanova style. The hall contains also many arms and implements of stone found in the caves that encircle Civita-Castellana.—*Chron. des Arts*, 1892, No. 23.

AURELIAN'S VICTORY.—NOTES BY LANCIANI.—An historical document of very modest appearance, but of remarkable importance, has been found in the Catacombs of Priscilla on the Via Salaria. It is a gravestone containing the name of an Epictesis on the outside face, and a *tabula lusoria* or gaming table on the back or inner side. These tables are composed of thirty-six letters, arranged in three parallel lines of twelve each, and each line is divided into two groups of six letters. The thirty-six letters generally express a sentiment complete in itself, and allusive to the fortunes of the game, to the noisy merriment of the winners, to the despair of the losing party, to the anxiety of "backers." The meaning of the present one is altogether different. The words are:—

HOSTES—VICTOS

ITALIA—GAUDET

LUDITE—ROMANI

"Italy rejoices in the defeat of her enemies: O Romans, come and play." A second table with an allusion to the same historical event has been discovered fifteen hundred miles away in the Catacombs of S. Eucharius at Trèves. Like its Roman mate, it contains on the outside the epitaph of a Memorius, husband of Festa, who died at the age of thirty-seven; on the inner face the same *tabula lusoria* expressed with a different formula:—

VIRTUS—IMPERI

HOSTES—VICTI

LUDANT—ROMANI

"The enemies of the Empire have been defeated: O Romans, come and play."

What is the victory which causes such intense relief to the populations of the Empire, so that they are invited to give up all concern about barbarians invading their land, and devote themselves to the joys of life? It was suggested at first that the battle alluded to was that of Pollenza, gained by Stilicho over Alaric and the Goths in 408, or else that of Fiesole, gained by Radagaisus in 405.

But both funeral inscriptions are at least fifty years older than the victories of Pollenza and Fiesole. The gaming tables, therefore, must have been made in the third century, and their inscriptions must refer to another victory famous in the history of the Empire. This can be but one: the victory gained by Aurelian in 271 over the barbarians on the banks of the Metaurus, near Ganum-Fortunæ. The terror which

struck the population of Rome and of the Peninsula at their first barbarian invasion was such that the Emperor and the Senate decided at once to fortify the capital. The hurry with which the walls of Aurelian were raised can be realized by those only who have had the opportunity of making as it were their autopsy, when the walls have been cut open by the engineers of the "Piano regolatore."

In 1884, while the wall between the third and the fourth towers on the right of the Porta S. Lorenzo was demolished, a nymphæum was discovered in the thickness of the wall itself, with the statues still standing in their niches. And good works of art they were. One of the groups, illustrated by Prof. Petersen, and representing a fight between satyrs and giants, is now exhibited in the Palazzo dei Conservatori.

The two stones found at Trèves and at Priscilla's catacomb are the only epigraphic record yet discovered of one of the greatest events in the history of Rome.—London *Athenæum*.

In the *Bullettino Arch. Comunale* of Rome, Prof. Lanciani has published a paper (1892, April-June) in which he makes a careful study of Aurelian's wall in connection with the above-mentioned inscriptions. After calculations as to the land expropriated, the length of walls and number of towers and other accessories, Lanciani shows how this wall was built not with especially manufactured bricks, as we find in the works of Hadrian, Severus and Caracalla, Domitian and Theodoric. Aurelian used the material of the constructions that were demolished to make room for the fortifications. This fact was illustrated near the Via Montebello where the material of two mausoleums came to light in the wall. The line followed by the wall was that of the city duties, which gave a good basis for his constructions. This duties line was very ancient; even earlier than Marcus Aurelius: the expense and trouble of building was thus much lessened.

A SLAVE'S COLLAR.—A slave's brass collar recently found in Rome has the inscription: SERVVS SVM DOMNI MEI SCHOLASTICI V SP TENE ME NE FVGIAM DE DOMO PVLVERATA. It was found under the church of S. Maria de Caccabariis. It was about 40 cent. in circumference and was riveted behind the neck. The collars hitherto found usually have the inscription engraved not on the collar itself but on discs which were hung or soldered to it. They are all posterior to the edict of Constantine forbidding the disfiguring of the faces of runaway slaves.—*Not. d. Scavi*, 1892, p. 23.

ACTS OF THE ARVAL BROTHERS.—The slabs containing the acts of the *Fratres Arvales* have been rearranged and enclosed in different frames by order of the Ministry. In the course of the work various details were noted which are published in the *Not. d. Scavi*, 1892, pp. 267-272.

Several fragments previously separated are found to connect; some new letters have been added; the juxtaposition of several fragments is varied. Besides this, attention is called to a new fragment found near the Tiber, which belongs to the time of Claudius; it contains five names, four of which are known and belong to this period.

FROM THE TIBER.—A travertine block brought up from the bed of the Tiber gives the consuls of the year 745 u. c. and commemorates work on some public monument. An inscription on a travertine base, also from the Tiber, commemorates a gift to the famous temple of Aesculapius by a man whose name is given as *Populicio* instead of Publicius. Part of a terminal cippus from the banks of the Tiber refers to the works executed in 700 u. c. by the Censors P. Servilius Gauricius and M. Valerius Messalla.—*Not. d. Scavi*, 1892, pp. 266-7.

SCULPTURE FOUND ON VIA LANZA.—On the Esquiline, Via Lanza, the following sculptures have been found: (1) good head of athlete, badly injured; (2) a headless armed bust; (3) part of a slab with Byzantine reliefs—animals and meanders; (4) fragment of statue of Diana.—*Bull. Arch. Com.*, 1892, p. 187.

WINE-POURING SATYR.—Sig. Ghirardini publishes in the *Bull. Arch. Com.* (1892, pp. 237-260) a study on the replicas to be found in Rome of the type of the youthful figure—athlete or satyr—in the act of pouring out wine. The original is attributed to Praxiteles. The principal Roman examples are: (1) one in the Boncompagni-Ludovisi collection; a second in the Capitoline museum; and a Vatican torso.

TIVOLI.—AN ANCIENT NYMPHÆUM.—At about a kilom. from Tivoli a vast piscina or nymphæum has been found, of circular form. It is built in *opus reticulatum*. Within it were a number of sculptures in poor preservation and of late art.—*Not. d. Scavi*, 1892.

VETULONIA.—NEW EXPLORATIONS.—In April, 1892, excavations were renewed in the necropolis of Vetulonia in the tumulus of Piétrera, which had been partly explored in 1891, when some bracelets of gold wire and a necklace of gold were found. On the present occasion a deposit of objects was found including: (1) two gold bracelets *a benda trinata* of exquisite workmanship, with decorations stamped on gold leaf with heads and figurines, the fifth of the kind discovered here; (2) a necklace of seventy *axini* of gold leaf and some thirty pendants of gold leaf in the shape of female busts; (3) fragments of bracelets of silver gilt of an entirely new type; also pieces of a silver box, etc.—*Not. d. Scavi*, 1892.

VULCI.—F. von Duhn contributes to the *Atti e mem. della R. depart. di Storia Patria di Romagna*, Jan.-June, 1892, an important article on the

conclusions which he believes should be drawn from the work of GSSELL, *Fouilles dans la nécropole de Vulci* (Paris, 1891). He writes in view of the criticism of the book published by Prof. Pigorini in the *Bull. di Pal. Italiana* (1891, pp. 181-5). After praising in the highest terms the conscientious exactitude of Gsell's work, he sets out to show that from its material he is able to reach conclusions diametrically opposed to the author's in regard to the relation between the rites of combustion and inhumation, conclusions that give support to the opinions expressed by him in the *Bull. di Pal.* for 1890 (pp. 108-31), which were summarized in this Journal (1891, pp. 318 sqq.).

The question, briefly, is this: Ghirardini, basing his views on the excavations at *Corneto*, concluded that the people of the well-tombs, or tombs for cremation, was identical with the archaic population of the Alban hills and the plains of the Po, an Italic people, and different from the Etruscans, who originally inhumed their dead, burying them in trenches, cases or chambers. Brizio, on his side, reached the same conclusion as Ghirardini, from the study of the necropoleis of *Bologna*, believing the tombs for inhumation to be Etruscan, and those, for example, of the necropolis of *Villanova*, to be Italic. Such is also von Duhn's opinion. An opposite ground has been taken by Helbig, Undset and Gsell: the latter, basing himself on the important excavations which he carried on at Vulci in 1889, concludes that "cremation remained (at Vulci) a much used rite after the disappearance of the well-tombs" (p. 359, 1). In his examination of Gsell's material von Duhn prefixes two considerations taken from Gsell: (1) "The bones are usually very poorly preserved in the necropolis of Vulci;" "on account of the action of fire, calcined bones are better preserved than those of inhumed bodies," and consequently "when no trace of the deceased is found, inhumation is probable." (2) "It is possible to confound bones of animals with human remains." There are three groups of tombs at *Corneto* studied by Gsell: (1) that near the *ponte della Badia* (B); (2) that at the place called *la Polledrara* (P); (3) that to the north of the *Cuccumella* (C). The latter contains the earliest tombs. After a careful study of all the tombs von Duhn draws up the following table:

	CREMATION		INHUMATION		UNCER-TAIN
	CERT.	PROB.	CERT.	PROB.	
I) Primitive period, nearly contemporary with the well-tombs of Cor-neto, about up to 650 b. c.	42 (O)				
II) Period of trench tombs ("fosses primitives") and cases (c. 700-500)		2 (P)	9 (C) 25 (B) 16 (P)	1 (C) 5 (B) 3 (P)	2 (C) 7 (B) 7 (P)
III) Period of trench and case tombs with Greek figured vases (c. 550-350)			2 (C) 29 (P)	3 (C) 18 (P)	8 (P)
IV) Period of tombs with large chambers of developed Etruscan type (IV-III cent.)			indefinite number, all for inhumation		
Incineration (alone up to c. 650)	42	1			
Inhumation (from c. 700 on)			81 besides those of period IV	30	
Uncertain cases but prob. also of inhumation					19

Gsell's report, therefore, demonstrates the exclusive use of cremation in the period of the well tombs, a period which, according to von Duhn, antedates in general the arrival of the Etruscans, which happened in Vulci in the second half of the VIII century. It demonstrates, on the other hand, the increasingly exclusive use of inhumation accompanied by other new rites, suited to a warlike people, from the VII century on.

SICILY.

SIG. ORSI'S EXCAVATIONS.—We have already called attention to Sig. Orsi's immense activity in Sicily. This is made evident by the reports which he issues from time to time in the *Notizie degli Scavi*. By his means Sicily is becoming the part of Italy where the most interesting excavations are being carried on. See for his work in 1890 and 1891 the *Notizie* for November and December, 1891.

MEGARA HYBLAIA.—The history of Megara and of its exploration up to 1889, as well as a description of the site, are given in a volume reprinted from the *Monumenti Antichi* of the Acad. dei Lincei. It is entitled *Megara Hyblaia, storia, topografia, necropoli e anathemata*, and is written by Cavallari and Orsi, but mainly by the latter. It is

shown how the city was completely destroyed in 482 B. C. by Gelon of Syracuse, and was henceforth merely a Syracusan fortress. As early as the VIII century there are traces of its commercial activity. Orsi opposes the theory that Megara Hyblaia was from the beginning a city inhabited both by Siculi and Greeks. He believes that it was a purely Hellenic colony, and that the allied Siculi dwelt on the surrounding hills. He strengthens his argument by the fact (1) that Megara was not easily defended seaward (whereas the Siculi always selected rocky sites on the sea); (2) that the antiquities found there are purely Hellenic; and (3) that on the overhanging hills there appears a totally distinct necropolis of the Siculi. Orsi asserts, besides, that there is no example of the commingling of Greeks and barbarians in the same city. E. Pais, in his review, contradicts the last statement, giving in rebuttal the examples of Motye, of Leontini, of Halikarnassos-Salmakis, and of Emporiae.—*Studi Storici*, I, 3, 1892, pp. 391-6.

For some thirty years before 1879, clandestine excavations had been carried on with disastrous effect; but in that year regular work was started under Cavallari. No record was kept, but the material results may be seen in the museum of Syracuse, consisting of a fine series of Corinthian vases, of black-figured lekythoi, and other minor ceramics: of red-figured vases there was but a single lekythos of stiff style, and only a few objects in bronze and precious metals. The work thus begun was not resumed until 1889, when it was carried on from January to May with the double intent of settling the cardinal points of the topography of the city and the limits of the necropolis. Prof. Cavallari had charge of the city; he cleared a section of the city wall with four towers and an important gateway, as well as a storehouse of late date. The excavations of the necropolis were in charge of Sig. Orsi, and in the first campaign 311 tombs were opened, the great majority consisting of large monolith sarcophagi. Some archaic terracottas having come to light between the first and second towers, which were conjectured to belong to a temple, this region was carefully explored. The results were reported in the volume by Cavallari and Orsi already referred to.

A new campaign was inaugurated in 1891 in the Schermi property. The tombs found here, also in great part monoliths, are numbered from 311 to 627. Their contents were added to the museum of Syracuse; a portion is synchronous with the contents of the Vinci tombs opened in 1879, but a section of this part of the necropolis seems to be the most archaic, as it contains a quantity of proto-Corinthian jewelry and vases and some paste scarabs. Especially noteworthy is

a hypogeal chamber of grandiose structure, decorated above with a band including Doric astragals and kymation in perfectly preserved sculpture.

The excavations of 1892, beginning with the tomb 628, will probably exhaust the necropolis, and if all are published with as much care as the first this will be the first Greek necropolis of Sicily explored with rigorous method and care and fully illustrated. The tombs are numbered in three series: the Vinci begin with 1 followed by a V, the Schermi begin at 630; others found in the country surrounding these fields are numbered alphabetically in the report. During February and March tombs 628 to 649 and A to V were excavated. Nearly all were monolith sarcophagi: 636 was of tiles; C a sepulchral bed; D and 641 ossuaries; K a hydria; Q and S chambers or cells. In general the contents of these tombs were characterized by the scarcity of Corinthian ware and the abundance of black-figured lekythoi and painted kylikes, skyphoi, aryballoii and pyxides. There are but few bronzes and some jewelry.

The excavations were continued during the month of April, resulting in the opening of a large number of tombs numbered on the official list from No. 40 to No. 68. Many contained merely the body; the majority of the rest, fragmentary vases of ordinary manufacture and some decorative objects. The greater part of the tombs were sarcophagi; some monoliths, but most of them constructed; some were chambers or *hypogaea* (Nos. 51, 52). The most interesting vases were found in Nos. 54 and 65. In 54 there were: a large zoned stamnos; a Corinthian aryballos; two zoned skyphoi; a black-figured kylix; a lekythos with three horses, etc. In 65 was: a small black-figured lekythos with four figures, representing the fight of two hoplites, with two spectators; another similar lekythos also with four figures.—*Not. d. Scavi*, 1892, pp. 210-14.

During the latter half of April (18-26) tombs 687 to 769 and 67 to 73 were opened. They were mostly monolithic sarcophagi of different sizes, intermingled with which are a few cells. The contents were, as usual, largely of terracotta vases, especially black-figured *lekythoi*, Corinthian *bombylioi* and *aryballoii*, zoned *skyphoi*, small amphorae, etc. There are also a number of more unusual objects. Such are: a female figurine of the type of Spes; terracotta masks; vases in the shape of a horse-head and a ram; a statuette of Bes; several female statuettes. Some of the subjects on the vases are: zones of animals, combat of hoplites.—*Not. d. Scavi*, 1892, pp. 248-52.

The excavations from May 1 to May 16 are reported in the *Not. d. Scavi*, 1892, pp. 278-88. The tombs were of the usual variety of mon-

olitic sarcophagi, cases formed of slabs, and hypogea cells or chambers. The contents were mainly vases. Many were plain, unpainted examples, some of bucchero. There were many Corinthian *bombylioi*, *aryballoï* and amphoras; there were also a number of black-figured vases, especially *lekythoi* and hydrias.

Dr. Orsi has brought to a close his campaign at the necropolis of Megara Hyblaia, where the tombs opened now number a thousand. Among the results obtained must be mentioned some objects in ornamental glass; none had been previously found.—*Athenaeum*, June 18.

RAGUSA.—**HYBLA HERAIA.**—The powerful ancient city of Hybla Heraia has been unanimously located on the lofty rocky site of Ragusa. It was long the successful opponent of the Greek states of Gela and Syracuse, being a city of the Siculi like its two homonyms. In 453 B. c. it was the only one among the Siculan cities to refuse to take part in the great national league against Hellenism formed by Ducestius. Shortly after it was drawn inevitably into the orbit of growing Hellenism.

Archæologically the city is unexplored. The only remains generally known are a magnificent and picturesque group of tombs cut in several rows in the rocks surrounding the city, which if studied would probably disclose all the phases of the city's development from the neolithic to the Hellenic. In the mean time the works on the railway have brought to light some tombs which illustrate the period when the Greeks were inundating the neighboring Siculan regions with their artistic products. Although most of the objects found were stolen, many were recovered and placed in the museum of Syracuse. The tombs are of three types. To the first only one belongs. It is an oblong ditch with a lateral niche, covered with three large slabs. In it were found, possibly, two large Siculan amphoræ, with geometric painted decoration; also four large black-figured skyphoi which constitute a unique group, dating from the close of the vi or beginning of the v century. Vase 1 represents a bacchanalian scene; vase 2 with Amazons and Scythians in chariots, flanked by sphinxes; vase 3 with athletic contests; vase 4 with winged sphinxes and incipient cock-fight(?). There were also other smaller vases, a number of bronzes including a decorated archaic patera. The Siculan vases can hardly have belonged to the same tomb, and date a little earlier. The second type of tomb is formed of a ditch dug in the sandstone: at its bottom is a monolith sarcophagus with its heavy monolithic top with gable roof, on the upper surface of which the vases were placed. Three slabs covered the ditch. Among the vases are two small kylikes, low and vari-colored, one of which has figures of Sileni in a good late

black-figured style of Attic manufacture. This type of tomb may also belong to the close of the VI century.

The third type of tomb consists of a ditch dug only to a depth sufficient to contain the large sarcophagus. Several tombs of this type were found in an unfinished condition, thus showing the method of their formation.

It is not yet certain whether the necropolis to which all these tombs belong was one devoted to Greeks resident in Hybla or to Hellenized Siculi.

Traces of another necropolis have been found, also Greek, in the valley of the Erminio, opposite the suburb.—*Not. d. Scavi*, 1892, pp. 321–32.

SELINEUS.—Prof. Halbherr writes as follows to the *Athenaeum*: “During the last two years excavations have been made with the object of bringing to light the fortifications which lie around the Acropolis of ancient Selinous, now called Selinunte. In exploring the western side of these walls of defence two towers were discovered last year (1891), one semicircular, the other rectangular. Near the latter a metope was found, somewhat broken in the lower half, representing two magnificent figures of divinities of fine archaic style, which have been identified by Prof. Patricola as Hermes and Hera. This important and unexpected discovery (for it was made outside the Acropolis and in a place where no temple existed) has been followed by others. In the new campaign, begun this year (1892) on the 30th of January, and directed to an examination of the fortifications added at the northern entrance of the Acropolis, there came to light on the 10th of February three new metopes. They were found amongst the heaps of stone belonging to a wall badly constructed out of ancient materials, a few metres distant from the semicircular tower disinterred last year. The stone which has been used for these sculptures is a white *tufa* of Menfi (a locality to the east of ancient Selinous), which stone, as has been proved by all the excavations hitherto made, was commonly used by the Selinuntines in their sculptures, and especially in archaic metopes. The thickness of the blocks of these three newly discovered metopes is 30 centimetres, and their dimensions show that they belonged to a single edifice; for they are all of equal height, and vary only slightly in width—a circumstance explained by the well-known fact that in the frieze of a temple the metopes nearest the angles were of a slightly different breadth from those in the middle. But according to Prof. Salinas, of Palermo, they did not belong to any of the temples hitherto discovered at Selinous. The temple from which they come, and which will probably

be found if excavations are made on a large scale in the interior of the Acropolis, must have been destroyed in very ancient times, because these stones served as building materials for the fortifications, which were very likely erected by the Syracusan Hermokrates, not long after the original walls of the city had been destroyed by the Carthaginians in the disastrous struggle of 409 B. C.

The best preserved of these metopes is almost entire, being only slightly injured in the lower angle of the right side, and still more slightly on the surface of one point of the cornice. It represents a strongly built bull, with long tail, in the act of running, or rather, as would appear from the position of the fore legs, swimming in the sea, an act which is conventionally indicated by means of the emblem of two dolphins represented under the legs of the animal. The head of the bull is sculptured in front view (not, like the body, in profile), with short but thick and strong horns, and abundant hair between the horns arranged in many small curls or clumps. Upon its back is seated a woman clothed in a long *chiton* and with a short *himation*, or small mantle, which reaches down to the waist, and has an indented border fringe all around. The figure is holding on with the left hand by a horn of the bull, while she supports herself with the right hand on its back. The type of the face in profile, the arrangement of the hair, which falls upon the shoulders in two thick masses, and the angularity of the curves, especially of the thighs and of the knees, are characteristics of the archaic style to which it belongs; but the whole appearance of the figure possesses a certain grace and life, which display very accurate workmanship, and a more perfect art than that which produced the rude and grotesque figures of the Selinuntine metopes now in the museum of Palermo.

Whilst this block gives us the representation of a myth, viz., the rape of Europa by the bull, the second metope—also entire, but a little more damaged in the lower part—presents a single figure of emblematic character, consisting of winged sphinx, the head sculptured in profile, with thick hair falling on the shoulders. It has a long tail which, passing between the hind legs and coming up under the belly, curls in the air high over the hinder portion of the body, almost to the height of the wings, thus appropriately filling up the artist's field. The sphinx is in the act of walking slowly towards the right, thus making us suppose that there was another metope serving as pendant to it, with the figure of a sphinx going towards the left. The type is strongly suggestive of an Oriental character.

The third metope was found completely ruined. In order to make it fit in the construction of a wall the figure had been broken away in

ancient times with some iron implement, so that only traces of the relief now remain. But these are sufficient to show that it represented a bull with a man who had it in command, viz., a scene from the myth of Herakles. Herakles with the bull is also a type frequently occurring on the coins of Selinous, and Prof. Salinas has proved that such representation formed that of the official seal of the city itself.

All these metopes preserve notable traces of polychromy, which, however, cannot be thoroughly studied till the cleaning is finished. In the metope of Europa with the bull the ground was painted red, as was also the inner part of the bull's ears. The pupils of the animal show traces of a dark color, and remains of a blue color can be seen amongst the hairs of the tail. The graphite palmettes and a deeper-cut egg border on the upper corner were also painted.

Prof. Salinas, who has published his report in the *Monumenti dei Lincei*, with plates in photogravure, is of opinion that these metopes, in which a resemblance can be discerned to the more archaic terracottas inspired by Oriental art, are of a little later date than the end of the vii or the beginning of the vi century B.C.

Since the above letter was written Prof. Salinas has announced two more discoveries at Selinunte. The first, which is of great interest for the topography of the ancient city, is that of the walls which formed an enclosure before the northern gate of the Acropolis, before the fortifications disinterred during these late years were constructed. The second discovery, which has an important bearing on the history of art, is that of some pipes of painted terracotta with their water-spouts, and some large slabs, also of terracotta, with painted decorations fired upon them, designed to receive the crowning of a temple, according to the same system found at Olympia in the building of the Sikelotai, and at Selinunte itself in the largest temple of the Acropolis. It was after the excavations at Olympia that Dr. Dörpfeld and others began to study this species of ornamental terracottas. Their origin is very ancient in the history of temple architecture, and they served to cover those upper parts of the temple which were made of wood, as the extremities of the beams of the roof, &c., and to protect them from the weather. They were fixed in their place by means of nails, and formed the *γέρα* or cornices both on the sides and in the front; but in Greece their use was soon abandoned when marble began to be employed in the construction of temples. In Sicily and in Southern Italy, where inferior stone continued longer in use, it would appear that such terracottas remained longer in vogue. Remarkable examples of them have been found of late years at Paestum and at Metapontum. The pieces now found surpass both in measurement and

in preservation any that were hitherto known, and may lead to the discovery at the entrance of the Acropolis not only of the building from which the recent metopes have come, but also of a building of larger dimensions than even the greater temple, which the painted terracottas now discovered served to decorate.

To this we will add: the discovery of the main street of the Acropolis with its cross streets; the basement of a temple hitherto unknown; details of the fortifications of Hermokrates with its loopholes, subterranean galleries, gateways and doors on their hinges, towers and guard rooms.—*Chron. des Arts*, 1892, No. 14.

SYRACUSE.—We wish to call attention to an interesting though relatively brief report published by Sig. Orsi in the *Not. degli Scavi* (1891, pp. 377–416) on Syracusan antiquities discovered under his direction. He explored the walls of Ortygia and Maniace, whose contents date mainly from the vi and vii centuries. Then follow discoveries at Neapolis and Achradina, in the catacombs, the necropoleis of Tusco, those between Achradina and Epipolai, and the Plemmyrion. In the latter necropolis there were found many very fine Greek vases of the best style both black- and red-figured, many of them Attic. The discoveries date mostly from so distant a date that we refer for details to the *Scavi*.

A SICULAN NECROPOLIS.—In January, 1892, excavations were begun in a Siculan necropolis at *Cozzo del Pantano*, on a rocky table land called *Paracontata*. In its walls to the S. and N. are excavated tombs with windows, of which thirty-seven were explored, with results embodied in the *Not. d. Scavi*, 1892, pp. 101–104. Only a few had contents of note. In No. 7 was a Mycenaean vase in form of a chalice (Furtwängler, *Myk.* V, xviii, 122). In No. 16 a mass of broken Siculan vases. In No. 30 two archaic Greek vases. Many objects of later date were mingled with the primitive deposits.

Prof. Halbherr remarks in the *Athenaeum* on the subject: “It is composed of the usual small chambers excavated in the rock, some of the larger having the form of a real *tholos*. The greater part have been rifled in former times, but in almost all there were found remains of primitive Siculan grave-goods in greater or lesser number. In some was recognized above the deepest and most ancient stratum a Greek deposit of the v and vi centuries b. c.; and in one was found a later Roman deposit of the iii or iv century a. d.”

“From the discoveries of Dr. Orsi on this new site it would seem to be proved that the necropolis belongs to the period which is called by him the second Sicilian period, and which is determined by the

tombs of Milocca and by those of Plemmyrion. Objects of flint are here rare, because they give place to bronze. Still, there are not wanting axes of basalt, of which six were found in a single tomb. Amongst the numerous objects of bronze are some *fibule* of undoubtedly primitive types, which will help to throw light on the much vexed question of the *fibulae* from Mykenai and from the *terremare*. From large and rich tombs were taken two Mycenaean swords in fragments, and from others some dagger blades. But a very remarkable fact is the presence in a tomb of a vase of Mykenai, the third which has now been discovered in Sicily. It is a *kylix* in form, and the decoration is perfectly identical with that of one from Haliké. One tomb, not very large, but intact, proved to contain an enormous number of corpses, not fewer than sixty skeletons being counted. Another contained, by the side of numerous skeletons, some fifty fragmentary vases, a great number of which can be completely put together. The prevailing forms are those of a cup and foot in the shape of a double cone touching at the summits, and of a cup with stem in form of a tube, in both of which forms Dr. Orsi is inclined to recognize copies in terracotta of vases in metal, maybe Mycenaean. Some are furnished with enormous handles in the form of two horns, and they are about a half a metre high.

"The Roman *Monumenti dei Lincei* will publish all the reports of Dr. Orsi and Commendatore Cavallari. That of the first campaign of excavations—which has furnished important topographical and archæological results, having brought to light a very large archaic collection, especially of vases and *figurini* in terracotta, from more than two hundred tombs—is now being issued. The results of the second campaign are being arranged and illustrated for a succeeding number of the *Monumenti*, while a third campaign of excavations has just begun, and already about a hundred and fifty new tombs, hitherto untouched, have been explored, some of which give promising results.

ITALY: CHRISTIAN ANTIQUITIES.

THE GOVERNMENT AND ART COLLECTIONS.—Early in 1892 in consequence of the alienation by Prince Sciarra of the most important paintings of his collection, the Italian Chamber passed a law relating to all collections of works of art subject to the *fidei commissio*. A yearly credit of 500,000 francs is placed at the disposal of the ministry of Public Instruction for the purchase of private rights over galleries, collections and works of art whose historic or artistic value shall have been recognized. Such objects must always remain in the city where they are; those in Rome shall be placed in the Capitoline

collections. In case the owner is neither willing to sell, nor able to conserve his collection, the State takes upon itself the cost of its care, and in return charges an entrance fee. Various fines and terms of imprisonment are imposed on transgressors.—*Chron. des Arts*, 1892, No. 9.

THE CHRISTIAN BASILICA.—M. de Lasteyrie read before the *Acad. des Inscriptions* an essay on the origin of the Christian basilica. His conclusion is that it is an error to seek in a single type of construction, like the basilica of the large Roman private houses, the model which the Christians reproduced without modification. In reality several elements concurred in the formation of the Christian type. From the civil basilicas it took its oblong shape, its internal colonnades, the form of its roof; from the Roman houses its atrium: from the exedras and other places of assembly, the apse.—*Chron. des Arts*, 1892, No. 6.

POLENTA.—**AN EARLY MEDÆVAL CHURCH.**—A church at Polenta, not far from Bertinoro in Romagna, has been the object of various studies and monographs, which show it to be an extremely precious work belonging to the most obscure period of Italian Christian architecture, the VIII-IX centuries. It is a basilica with three apses, with arches supported by columns, and an important columnar crypt with a raised choir above. The last part of the VIII or the beginning of the IX appears to be the period of its foundation, and there are documents concerning it as early as 977. The capitals of its columns and the chancel screen are very important for helping to determine the character of decorative sculpture at this time. The references are: ANT. SANTARELLI, *Di un'antichissima chiesa in Romagna* (*Arte e Storia*, an. ix, No. 28); C. CILLENI-NEPIS, *Il tempio di Polenta*: C. Ricci, *Il castello e la chiesa di Polenta* (*Atte e mem. Stor. Pat. Romagna*, S. iii, vol. ix): R. ZAMPA, *Il castello e la chiesa di Polenta nella provincia di Forlì*, 1891 (*Il Politecnico*; Milan). All these are reviewed by C. Errera in, the *Archivio Storico Italiano* of Vieusseux, 1892, pp. 132-6.

ROME.—**THE PLATONIA AT S. SEBASTIANO.**—The ancient subterranean chamber behind the apse of the basilica of S. Sebastiano on the Via Appia called the *Platonia* was, according to early tradition, the temporary place of burial of SS. Paul and Peter. In January, 1892, investigations here were commenced by entering the subterranean tomb next to the large open chamber. It had been last entered by Marchi and Perret forty years ago. Its walls and vault had paintings of the IV century, probably executed by Pope Damasus who, according to the *Liber Pontificalis*, decorated the *Platonia* with a metrical inscrip-

tion. In the lunette on the right is a scene where the bust of Christ appearing from the clouds is presenting a crown to S. Peter on his right, who receives it in his pallium. S. Paul, with arms extended, is on the left. At each end is a palm tree. A corresponding scene, entirely destroyed except for part of the two palms, was in the opposite lunette. The paintings of the vault probably represented the twelve apostles in six compartments, only two of whom can be discerned. In the chamber is the double tomb, lined with marble, in which the sarcophagi of the two apostles are thought to have rested and to have been removed before the construction of the vault.

The arcosolia surrounding the Platonia were then studied and found to have been adossoed to its surrounding wall after its construction in the III century, after the pavement of the Platonia had been raised in the IV century. This late date would not seem to agree with the stuccoes in the arcosolia, which are of elegant and early design with pilasters, leaves, flowers, genii and imitation of colored stones. The artists of these stuccoes are indicated by the following inscription scratched on the arch of one of the arcosolia: *MUSICVS CVM SVIS LABVRANT-IBVS VRSVS FORTVNIO MAXIMVS EVSE:(bius)*. Above the arcosolia a band of paintings was found representing, at least in part, pastoral scenes, which was covered up later by a raising of the arcosolia.

At the corner of the chamber was the entrance to another chamber which was closed up in the IV century. It dates from the III century. Its pavement was found 2.35 metres below the raised pavement of the IV century. Remains of mosaics, a rough sarcophagus and a male statue of poor style of the III century came to light here.

The discovery of an ancient entrance of the I century, with four steps leading to the old Roman road, not connected with the Platonia, shows that the site of the Platonia in the time of the apostles was an open area; that if they rested here after their martyrdom it must have been in a structure now destroyed, and that the Platonia is entirely a structure of the III century. But the best solution is that the bodies were not transferred here until the persecution of Valerian in 258. In the excavations there came to light a number of fragments of Christian sarcophagi of the IV century.—S. MARUCCHI, *Not. d. Scavi*, 1892, pp. 90-97.

CHURCH OF S. COSIMATO.—In the enlargement of the hospital of S. Cosimato, undertaken by the Congregation of the Carità, the level of the primitive church has been found under the pavement of the old choir of the monastery. A part of its ancient pavement remains consisting of a mosaic of white and black cubes, of rude execution, with squares and bands of white and colored marbles, such as granite, porphyry

and serpentine. The mosaic is divided into compartments of varied design: in one is a screen, in another a fish, in a third two eagles with wings spread, while in others are series of small squares and triangles. Among other finds are: (1) a marble slab with Italo-byzantine geometric decoration also from the old church; (2) part of the front of a sarcophagus in relief; (3) three Christian inscriptions from a Catacomb, one Greek, the other two Latin. Among the Christian terracotta lamps found there was one of great interest with the representation of a city with gates, temples, etc., and, below, a fisherman in a boat, and another one standing in the water raising a net. In demolishing an old altar near the apse there was found imbedded in it a tile-covered urn containing several vessels with sacred relics, especially bones, ashes, earth and pieces of stuffs. The vessels were: two glass vases of the XVI century, one of which contained a reliquary cross of bronze of Byzantine style with figures on both faces; a circular ivory box with open-work decoration; three wooden boxes.—*Not. d. Scavi*, 1892, pp. 315-6.

S. MARIA IN COSMEDIN.—M. Geffroy, director of the French School, reports to the *Acad. des Inscriptions* that a Society of Architects has recently been founded in Rome, mainly for the purpose of studying, preserving and restoring the monuments of antiquity of the Middle Ages. The government confided to it the restoration of the basilica of S. Maria in Cosmedin. The president, Sig. Giovenali, had charge of the work in the interior of the church, and a report on the results has been made by Commun. Stevenson. Some very curious stuccoes, dating perhaps from the close of the IV century, and some paintings anterior to 1000 A. D. have been found. The slabs of the pavement which were used in forming the usual Cosmati designs, when reversed, showed an earlier decoration of the Byzantine type. The plan is to restore the basilica to the condition in which it was in the year of jubilee 1300.—*Chron. des Arts*, 1892, No. 39.

MEDIEVAL CAMPANILE.—In restoring the interior of the house of the Oblate nuns at Tor de' Specchi, toward the Via Montanara, there came to light part of a mediaeval bell-tower. It is constructed with two-light arch windows with side pilasters sculptured, and central colonnette decorated with Cosmatesque mosaic. It belonged to a small ancient church which stood near S. Maria de Corte, on whose site the present church of Tor de' Specchi is built.—*Not. d. Scavi*, 1892, p. 159.

A XV CENTURY VIEW OF THE INTERIOR OF S. PETER'S.—M. Paul Durrieu has communicated to the *Acad. des Inscr.* the fact of the existence in a MS. of the *Grandes Chroniques* at the *Bibliothèque Nationale*, of a miniature of Jean Fouquet, which reproduces with remarkable fidelity the

interior of the old basilica of S. Peter. It is known that Fouquet lived in Rome under Eugenius IV (1431-47), and it must have been then that he acquired the knowledge which he afterwards used for this miniature. Until now there was no representation of the interior known earlier than the xvi century, and the present is unique in value, not only as being the earliest but perhaps the most exact of all known views.—*Chron. des Arts*, 1892, No. 17.

A HUNGARIAN SCHOOL FOR HISTORY AND ARCHÆOLOGY.—Through the liberality of Mgr. Fraknoï, second president of the Academy of Budapest, a Hungarian Academy for the study of history and archaeology, somewhat on the plan of the French School, has been founded. It will be placed in a new building on ground purchased by Mgr. Fraknoï in the former Villa Sciarra near the Janiculum gate.—*Chron. des Arts*, 1892, No. 14.

SALE OF ITALIAN PAINTINGS.—The Leclanché sale in Paris in May included quite a number of Early Italian paintings. Some paintings are assigned to the xv century, Sienese and Florentine schools: those of the xv century include Florentine and Milanese. The names employed in some cases indicate at least the style: such are, Botticelli, Cima, Ghirlandaio, Gozzoli, Filippino Lippi.—*Chron. des Arts*, 1892, No. 22.

MUSEUM OF INDUSTRIAL ART.—This museum purchased at the sale of the Simonetti collection a wonderful piece of Siculo-Arabic stuff of the xii century. It is a *chape* of cherry-red silk embroidered in gold, 2.45 metres in diameter. The design is of the type with the *om*, or sacred tree of the Persians.

SIENA.—PAINTED ACCOUNT-BOOK COVER.—At a session of the *Society of Antiquaries* in London Alfred Higgins exhibited two painted Treasury or Exchequer account-book covers from Siena, on which he read some notes touching also upon a series of similar covers now preserved in the Palazzo del Governo in Siena.

The lower half of the outer surface of the earlier of the covers exhibited bears an Italian inscription which shows this to have belonged to an account-book of the Treasury of the Commune of Siena for the six months from July, 1357, to January of the same year, according to their reckoning. The names of the chamberlain and four other officials appear with that of the clerk. "In the upper part of the cover, divided from the inscription by an attached band of leather, is a painting in tempera representing a scene in the treasury."

"The cover consists of a panel of light wood, fourteen inches long by ten broad and five-eighths inch thick. The back surface is that of natural wood, planed and smoothed." "Both picture and inscrip-

tion are framed with hammered gold borders bearing a simple incised pattern."

The second specimen exhibited is the cover of a similar book relating to the dates from January 1401 to June 1402. As in the former example the picture on the upper half depicts a scene in the Treasury.

"Below the picture in the place of the strip of leather on the earlier cover there is a fine band of ornament displaying six large shields of arms."

"The size of the present cover is seventeen inches by twelve and a half inches. Technically the methods of decoration are identical with those already described, but the skill with which the ornaments of the gilded gesso is produced by the use of blunted styles of varying size should be observed."

The magnificent collection of archives of the city and district of Siena is most admirably arranged in the Palazzo del Governo.

"The covers of the Treasury books there preserved have been framed, and are hung chronologically in the long corridors of the upper story of the palace. The lines begin at a very early date in the history of the local school of painting, and the whole development of that school may there be studied from the XIII century down to modern times." "Some have been identified as by the hand of Duccio di Buoninsegna, whilst others are as certainly by the Lorenzetti."

"Ambrogio Lorenzetti's famous symbolical figure of the Government of Siena, formerly supposed to represent the Emperor, is reproduced very closely on a cover of the year 1343-4, *i. e.*, four years after the last recorded date of payment for the master's fresco in the Sala dei Nove in the Palazzo Publico. One of the most important of these Treasury book covers, from the archaeological point of view, has a picture showing the original arrangement of the choir of Siena cathedral, with the great pulpit of Niccolo Pisano on the south, inside the choir screen, and Duccio's great retable in its place over the high altar."

The South Kensington Museum possesses a specimen of these Sienese covers dating from 1360. The picture shows a monk in a white habit seated at a table counting money. He is the chamberlain, Frate Meo; his name alone appears with the inscription. The cover is small; it perhaps belonged to a book kept by the chamberlain alone.—*Proceedings of the Society of Antiquaries*, 2d S. xiv, 26.

VERONA.—RESTORATION OF S. MARIA ANTICA.—The small church of S. Maria Antica is one of the earliest in Verona. Its three naves remain uninjured by any radical changes. The restoration lately undertaken by the local commission has yielded, however, interesting results.

First, the walls were cleaned from stuccoes in barocco style, executed in about 1630, and this resulted in disclosing the existence of two side apses, and in showing better the form of the main apse. Two small frescoed niches were found in the main apse, those on the left representing the Annunciation and Visitation in XIV century style. The side-apses were without their semi-domes. The destruction of the modern barrel vault over the nave showed that it was anciently covered by three cross-vaults, as was also the case with the side-aisles; the latter remain. There were two transverse arches dividing the main vaults; a corresponding arch still remains as the triumphal arch. The long and narrow windows have been reopened. A piece of mosaic pavement, found under the left side-aisle, proves the existence, on this site, of an earlier church.—*Nuovo Archivio Veneto*, tom. IV, pt. II, pp. 358-69.

SICILY: CHRISTIAN ANTIQUITIES.

SOME SCULPTORS OF THE XVI CENTURY.—Sig. Mirabella publishes in the *Archivio Storico Siciliano* (1892, pp. 66-78) six notarial acts registered with the notary De Mulis of Alcamo in the years 1577, '79, '80, '81, which relate to three sculptors of the XVI century. Their names are Giacomo Pini Salemi, Baldassare Massa and Battista Carrabio. The two former sculptors were intrusted with the decoration of the main chapel of the church of N. S. dei Miracoli outside of Alcamo; also statues of SS. Peter and Paul. The work, however, appears never to have been carried out. Massa was dead in August, 1580.

CATANIA.—THE STATUE AND RELIQUARY OF ST. AGATHA.—C. S. Patti has contributed to the *Arch. Stor. Siciliano* (1892, pp. 178-212) a paper entitled “*La statua, lo scrigno e la bara di S. Agata.*” The statue is a half-figure, a little over life-size, of silver-gilt, executed in France by an Italian artist in the XIV century. It rests on a base executed at least two hundred years later. It is a reliquary and contains the head and bust of S. Agatha. Two graceful angels are placed on brackets on either side of the original octagonal base of the bust with their arms extended to support its arms. The saint holds in her right a cross, accompanied by lilies, and in her left a tablet. The flesh tints are made of an opaque enamel. The outer garment is a heavy mantle falling over the arms. The face is beautiful, with blue eyes, smiling mouth, and long golden hair. The height of bust and base is 1.03 metres. The early base is beautifully decorated with enamels and broken up with Gothic buttresses. It bears the arms of the house of

Aragon, those of the city of Catania and perhaps of Gregory XI. There is an enamel composition at each angle representing: (1) bishop Martialis; (2) bishop Elias; (3) S. Catherine of Alexandria; (4) S. Lucia (?). Around the base is an inscription giving the history of the execution of the work under the two bishops, Martialis and Elias, by the artist Giovanni Bartolo, who finished it in 1376. Both bishops were from Limoges. Müntz regards the artist as the famous Giovanni di Bartolo of Siena. But the inscription reads *Joannes Bartolus et genitor celebris cui patri Ceve*. Sig. Patti thinks Bartolus here is not the name of the father—di Bartolo—and refuses to see Siena in *Ceve*. He regards Giovanni Bartolo of Ceva as a different artist from the Sienese. [I may suggest that this difficulty of Sig. Patti would vanish if he regards the work as the joint product of Giovanni [di Bartolo] and his father Bartolo: *Joannes et genitor celebris Bartolus*, the words transposed, as is often the case. I am also inclined to believe that the *Ceva* should read *Seña*, Patti to the contrary.] The work was executed apparently at Limoges.

A second important object is the reliquary containing the *arti* of St. Agatha. According to a very early tradition it was executed at Avignon by the same artist, and at the same time as the preceding. The cover, however, was executed two hundred years later in 1579. It is in the form of a rectangle surmounted by a gable roof. The exterior is decorated with decorated Gothic architectural forms in enameled silver, with figures in relief on a ground of gilded metal. Twenty colonnettes divide the decoration into as many compartments in each of which is a statuette of solid silver about twenty centimeters high, surmounted by a baldachin of exquisite workmanship. The base is in open work as delicate as fine lace. On the long sides the statuettes represent the twelve apostles seated: in the center of one side is S. Sebastian; in the other S. Jerome [Patti says Christ, but the lion and the broad corded hat point to S. Jerome]. In the four corner compartments are four bishops. In the two large compartments that decorate the two ends are represented: on one side the coronation of S. Agatha by Christ, and on the other S. Agatha and a figure representing Catania (?). The cover is rich and filled with figurines, and has an inscription with the date 1579. The date of the body of the work is conjectured by Patti to be the beginning of the xv century: he thinks it was executed in Catania, and not by Giovanni di Bartolo, but by Bartolomeo Vitale, who went from Limoges to Catania at this time. The style is said by Müntz to be Spanish, by Patti to be Flemish.

FRANCE.

MEGALITHIC LEGENDS.—M. Reinach called the attention of the *Acad. des Inscriptions* to the names popularly attached to megalithic monuments and to the legends connected with them, both of which are remarkably uniform over a broad extent of territory from England to Japan and India. Connected with them are many authentic survivals of paganism, related to giants, dwarfs and fairies, which prove how polytheism, expelled from the cities, continued to flourish in the country and still exists.—*Chron. des Arts*, 1892, No. 33.

In deducing certain general conclusions from the legends connected with megalithic monuments, M. Salomon Reinach (*Acad. des Inscr.*, Nov. 11, '92) asserts that these legends are allied to those that formed the Pelasgic mythology before the formation of the Greek Pantheon. This idea is confirmed by the analogy of the material civilization of Gaul at the megalithic period to that of Pelasgic Greece. In both we find constructions of enormous blocks of stone, triangular poniards of a special type, vases decorated with incised ornaments filled with a white substance. The pointed decoration of some Mycenaean vases recalls the concentric semi-circles engraved on the dolmen of Gavr'inis and in a vase found in a dolmen near Quiberon. It may therefore be thought that tens of centuries before the great unity realized by the Roman conquest there existed another unity whose cause will always remain unknown. The most plausible conjecture is that the current of civilization which is called Pelasgic moved from the West to the East and not in the opposite direction as has been supposed.—*Revue Critique*, 1892, No. 47.

THE BURGUNDIAN SCHOOL OF SCULPTURE IN THE XV CENT.—M. Courajod has published (*Chron. des Arts*, 1892, Nos. 26, sqq) a lecture which he delivered in Dijon, on July 10, on the Burgundian School of the close of the xiv and of the xv century. He opposes himself to Mgr. Dehaisnes and others who would make the Burgundian School a mere offshoot of the Flemish School of Sluter, Van de Werve and others. M. Courajod grants the Flemish origin of Burgundian art, whose centre was Dijon, but contends that it put on a peculiar form at Dijon, at the close of the xrv century, and that it was this form that flourished so as to eclipse the parent school, and which alone was propagated through northern and central France. He asserts the decoration of the funerary chapel of the dukes of Burgundy at Dijon, the Carthusian monastery of Champmol, was during nearly a century, from 1383 to 1470, the mirror of all occidental sculpture beyond the Alps. All the great Flemish, Franco-Flemish and subordinate foreign schools shared in the work whose inspiration and direction was Burgundian. By its

magnificence all patrons of art and artists were hypnotized. It established a unity of style, which gave the tone to all French sculpture during the xv century. He quotes as proof of the mourners of the tomb of Jean-sans-Peur which took sixty years to execute and was the work of three artists (Flemish, Spanish, of Avignon) but which was consistently a faithful copy of the monument of Philippe-le-Hardi. The same is the case with the famous monument of Jean de Berry at Bourges, ordered of Jean de Rupy, whose mourners were the work of Paul Mosselman and Etienne Bobillet. The same Burgundian influence is seen in the mausoleum of Philibert at Brou.

Mgr. Dehaisnes has answered M. Courajod in a succeeding number of the *Chron. des Arts* (1892, No. 29), temperately and conclusively, it would seem. He demonstrates that the twenty principal sculptors of Sluter's school at Dijon were Flemish and denies the existence of any Burgundian school. He also shows that the principal works of sculpture executed in France until after the middle of the xv century show no influence from Dijon, but are the work mainly of Flemish artists.

CASTS OF FRENCH SCULPTURE FOR THE CHICAGO EXHIBITION.—The French commission for the Chicago Exhibition arranged with the *Commission des Monuments historiques* to exhibit at Chicago a series of casts of the finest works produced by French sculpture from the xii to the xix century. They have been made at an expense of over 100,000 francs, and by arrangement, we believe, with the committee on casts of the Metropolitan Museum, New York, this superb collection is to remain in America, and will form a part of the collection now being formed in New York.

AN ILLUMINATED HEBREW MANUSCRIPT.—Moïse Schwab publishes in the *Journal Asiatique* (Jan.-Feb., 1892) a notice of an interesting Hebrew manuscript in the Bibliothèque Nationale in Paris (No. 1333). It is a *Haggada* or ritual for the evening of the Jewish Easter and is decorated almost on every page with illuminations as well as painted initial letters. Although ascribed by the catalogue to the xiii century, these miniatures belong to the close of the xiv or beginning of the xv century. This date is made certain by the details of the costume, the head-dresses, furniture, ornaments, etc. The subjects are mostly *genre* scenes which pass indoors. Each scene has a title and is described in verses. Many of them illustrate the various stages of the ceremonial of the day in a lively and familiar fashion, while many others give the early history of the Hebrews, and all are the work of an excellent artist, probably a southerner. The details of family life and customs, of games and tricks, of religious ceremonies, all form an

album which can scarcely be surpassed in its way by any other mediæval series.

JEAN GILLEMER AND TRISTAN L'ERMITE.—An interesting document has been discovered by M. Lecoy de la Marche and published in the *Revue de l'Art Chrétien* (1892, No. 5). It is the interrogatory of an obscure illuminator of manuscripts who was arrested and subjected to the question by Tristan l'Ermite, the notorious minister of justice and executioner of Louis XI. He was suspected of being a spy of the duc de Guyenne on account of a journey which he had made in that province in the exercise of his profession, was arrested and subjected to three interrogatories. These were reported verbatim in the document discovered, which is rare in itself, and also gives an unusual amount of information regarding the life and profession of the popular illuminators who, like the great artists of the period, had studios and scholars, travelled from city to city and worked and studied at Paris, in Flanders and in Italy. Jean Gillemer drove a trade not only in illuminated hours but in charlatan receipts for the cure of varied ills: he is shown to have been extremely superstitious.

ORIGIN OF FRENCH SCULPTURE.—M. Courajod in opening his course of lectures this year at the École du Louvre has given an essay on the origin of French mediæval sculpture. He opposes himself to the theory that classic remains were the source of the revival in France, and concludes that the Merovingian and Carlovingian sculptures show that Byzantine art had a large share of influence, and that its action was decisive on both decorative and figured sculpture in the x and xi centuries. The writer in the *Chron. des Arts* regards this as an entirely new thesis, but it has been broached before by a number of writers, notably by Viollet-le-Duc.—*Chron. des Arts*, 1892, No. 15.

INSTRUCTION IN THE HISTORY OF ART.—The ministry of Public Instruction has decided that the commissions preceedingly instituted for the supervision of what is termed *Imagerie Scolaire* shall be united in a single consulting committee charged to prepare catalogues and collections of works of art, to be placed for use in lycéums and colleges, and other establishments of Public Instruction. Their duties will be:

(1) To draw up, in harmony with the existing programmes, a methodical list of publications, documents, prints, photographs, casts, etc., which are suitable for illustration in the teaching of the history of art and for giving to students the most essential artistic notions.

(2) To examine requests for the creation of collections suited to the different grades of instruction.

(3) To guide by advice and direction the heads and professors of institutions desirous of supplementing instructions by auxiliary means,

such as visits to museums, lantern lectures, temporary exhibitions, circulating collections.

The members of the committee are thirty-one, chosen from the most eminent men in France, both practical artists, historians of art, directors of museums and heads of public instruction.—*Chron. des Arts*, 1892, No. 15.

THE DIRECTION OF PUBLIC MONUMENTS.—The minister of Public Instruction has promulgated a decree reorganizing the service of Historic Monuments. In future the architects in charge of the monuments will be selected by competition, according to Civil Service methods, as vacancies take place. Only those architects are admitted to compete who have been recognized as capable by the committee. Of all the government architectural organizations that of Historic Monuments was the only one that had hitherto retained complete independence. It had a separate budget; it decided the work that was to be done; it selected the architects to be placed in charge of it, and, from habit, chose them from among its own members. This state of things was regarded as abnormal. The new decree is not retroactive.

—*Chron. des Arts*, 1892, No. 6.

RENAISSANCE TAPESTRY.—A *mandement* of Francis I, dated June 19, 1539, recently published, shows that he had paid to "Girard Laurens et Guillaume Torcheux, maistres tapissiers de la ville de Paris," the sum of 1.632 livres, 2 sols and 6 deniers tournois for a certain amount of tapestry in 35 pieces: "pour la quantité de 296 aulnes trois quars de tapisserie de haulte lisse, semée de fleurs de liz, en trente-cinq pièces, par eux livrée a feu nostre amé et féal chancelier de France Anthoine Du Bourg, etc. Further, the payment to "Girard Josse et Jehan Labru, painctres, demourans a Paris" of 25 l. 10 s. t. "pour plusieurs patrons, de diverses sortes, largeurs et hauteurs, qu'ils ont faictz, en toile, de ladie tapisserie. Further, to "Jehan Le Pelletier, aussi tapissier," 46 l. t. pour avoir garni lesdictes trente-cinq pièces de tapisserie.

The text of the specifications and contract for these hangings, which is extremely detailed, complete a document which is very interesting for the history of tapestry of *haute lisse* in Paris under Francis I. The colours and designs and measurements, down to the smallest details, are carefully specified. This document is dated March 18, 1536 (old style). In it the artists Guillaume Tacheux (Trocheux or Torcheux) and Girard Laurens are called "maistres tappissiers de haulte lysse en ceste ville de Paris."—*Chron. des Arts*, 1892, No. 9.

AMIENS.—THE SCULPTOR JACQUES HAGG.—The historians of Amiens and recently Mgr. Dehaisnes (*Rev. Art Chron.*, 1889–90,) have published

information about this artist, who must have been one of the principal *imagiers* of Amiens during the second half of the xv century, and executed for the city gates two large statues of St. Michael (1464) and St. Firmish (1489). A document published in the *Chron. des Arts* (1892, No. 22,) shows that he was imprisoned for sweating coin, but on account of his otherwise good reputation King Louis XI granted him a free pardon. This was in 1481. The document is the royal letter.—*Chron. des Arts*, 1892, No. 22.

AURILLAC.—An urn full of gold pieces of the xv and xvi centuries has been found in the foundations of a house belonging to M. Poignet. Some are Spanish, some Italian; others, with the effigies of Charles IX and Henry III are like new. Their value surpasses a hundred thousand francs.—*Chron. des Arts*, 1892, No. 9.

CAHORS.—A GALLO-ROMAN HOUSE.—In digging for the foundations of a structure which the Soeurs de la Miséricorde are erecting, there were found the ruins of a large Gallo-Roman house, destroyed by fire at the time of the sack of Cahors by the soldiers of Theodebert in the vi century. Three halls were paved with Mosaics; the walls still bear traces of fresco paintings. Fragments of bronze, marble and terracotta were found together with imperial coins.—*Chron. des Arts*, 1892, No. 22.

DIJON.—The archives of the city of Dijon, and in particular the petitions for a diminution of taxes addressed by the inhabitants from the close of the xiv century on, have furnished a great deal of information regarding the artists who flourished in Dijon during the xv century. M. Chabeuf has published two papers full of such documents in the *Mém. Soc. bourg. de géog. et d'hist.*, t. vi, and in the *Mém. de l'Acad. de Dijon*, t. ii. M. Vallée, the archivist, has also discovered the following. In regard to the famous sculptor Antoine le Moiturier, no trace of his residence in Dijon had been found posterior to 1494 or 1495. A document of 1497 now shows that at that time he had been for two years residing in Paris. It remains for the archives of Paris to show traces of his residence and activity there. A series of documents relates to the famous goldsmith and engraver Jean Duvet, who lived in the xvi century and is known as "le maître à la Licorne." They showed that he lived at Dijon for many years, if he was not born there.—*Chron. des Arts*, 1892, No. 20.

EVREUX.—A MILITARY TREASURY.—In August, 1890, some workmen engaged in digging for the foundation of a new government building in the city of Evreux came upon a great quantity of coins. The site of the excavations is that of the ancient castle of the dukes of Bouillon

which was erected upon some Gallo-Roman remains. The entire mass of coins weighed 340 kilograms. It comprised ten blocks of varying dimensions, the largest weighing 68 kilograms. The coins had been soldered together in these blocks by the action of special acids which, coming in contact with the metals composing the coins, furnished the solder and formed the agglomeration. A number of isolated pieces were found to weigh about 3 grams. The entire number of coins amounted to nearly 110,000. Of these some 5,000 have been subjected to a cleaning process by means of special liquids. It was possible to decipher and classify 4,400, and they were put on exhibition in the Museum of Evreux. The classification shows the following types: those of Vespasian, Marcus Aurelius, Philip the younger, Hostilian, Trebonianus Gallus, Volusian, Æmilianus, Valerian the elder, Marini-anus, Gallienus, Saloninus, Salonica, Valerian the younger, Postumus, Lelianus, Victorian the elder, Marius, Tetricus the elder, Tetricus the younger, Claudius Gothicus, Quintillus, Aurelian, Severinus, Tacitus, Florianus, Probus. It is conjectured that the coins were part of a Roman military treasury, left in the Roman camp which was surprised by the barbarians. This must have taken place early in the reign of the Emperor Probus, 276-282, for the latest coins belong to the first years of this reign.—*Revue Numismatique*, 1892, p. 7.

FOUGÈRES.—The city of Fougères has purchased the historic castle of this city which belongs to the heirs of Baron de Pommereul, for the sum of 80,000 francs, the State contributing half this sum. It is in a good state of preservation. It was built in 1178, continued in the XIII century and partly rebuilt in the XV century. The State intends to restore it.—*Chron. des Arts*, 1892, No. 10.

GANNES.—A ROMAN CITY.—M. Magoy, who is in charge of the works on the canal of Briare, has discovered important remains of the Roman city of Gannes, situated on the borders of the Loire, between Châtillon-sur-Loire and Beaulieu. The canal passes clear through the ancient site. Architectural ruins, implements, jewelry, coins and pottery have come to light. The ruins were to be removed from the bed of the canal early in 1893.—*Chron. des Arts*, 1892, No. 14.

LYON.—In 1797 the Ch. of S. Etienne was demolished. Its substructures have recently been uncovered and several interesting pieces of sculpture found which had been buried at the time of the destruction. Among them is a sepulchral reclining statue of painted stone representing a knight in armour with a dagger in his side.—*Chron. des Arts*, 1892, No. 30.

MONT SAINT MICHEL.—The *Commission des Monuments Historiques* has decided to restore the Romanesque central tower of the Mont-Saint-Michel. It has long been held up merely by wooden stays. It will be necessary to reconstruct the four piers of the transept and the arches supporting the tower. The present upper story of the tower was added in the xvii century: it will be replaced by one in harmony with the Romanesque style, crowned by a pyramidal roof. The restoration involves the reconstruction of the adjacent parts of the nave and choir. The work is to last four years.—*Chron. des Arts*, 1892, No. 28.

NARBONNE.—There has recently been found at Narbonne, on the area of the ancient forum, the pedestal of a statue bearing the name of a certain L. Aponius Chaereas, augur and quaestor of Narbonne, who is further described as having received the decorations of aedile of that town, and also those of aedile, duumvir, flamen, and of augustalitas of Syracuse, Palermo, Termini, and other sea-board towns in Sicily. The lettering of the inscription seems to be of the beginning of the ii century, a. d., when Narbonne was the principal centre of maritime trade for Southern Gaul. Chaereas, therefore, was probably a merchant who had dealings with Sicily.—*Academy*, April 23.

ORANGE.—The minister of Public Instruction and Fine Arts has assigned the sum of 40,000 francs for the restoration of the ancient theatre of Orange. The work has been assigned to M. Formigé, and is to be confined to the renewal of the steps and the sustaining vaults.—*Chron. des Arts*, 1892, No. 7.

PARIS.—LOUVRE.—WORK ON THE BUILDINGS.—The Higher Commission of Civil Buildings and National Palaces had been requested by the ministers of Public Works and Public Instruction to report on the work to be done at the Louvre and Tuilleries to ensure their preservation and to allow for a proper development of the museum. The report was made by Senator Bradnox. It is divided into two categories: internal and external work. All the external work recommended is necessary. Among the necessary external expenses are: the heating of the Egyptian department where several important steles have already been destroyed by dampness; also the museum of the Renaissance and of modern sculpture should be heated, and the latter enlarged by the addition of the halls devoted now to prints. A hall must be finished in which to place the antiquities of Algeria and Tunisia, which have been moulding in store houses for over ten years. The former imperial manège should be transformed into an exhibition room. Among the works called for in the future are: (1) the addition to the museum

of the *Salle des États*, for paintings, which would have cost at least 468,000 francs, and then (2) the addition of the *Pavillon de Flore* and the halls under the *Salle des États*, at an expense of 700,000 francs. Total for works of the future, 1,168,000 francs; for necessary works, 1,138,000; for urgent works, 481,000. General total, 2,787,000. It was decided to ask on the budget of 1893 for a credit, the first of a yearly allowance, for urgent works, which would include the beginning of the transformation of the *Salle des États*.

The ministers promised to ask for a special credit for urgent works and for a credit of 300,000 on the budget of 1893, which would be but the first of a series of annual subventions.—*Chron. des Arts*, 1892, No. 11.

Nearly all the apartments hitherto used for offices of public administration are to be given up to the museum. Such is the wing extending from the *Pavillon des États* to the *Escalier de Flore*. None but the apartments of the prefect and his chef de cabinet will be retained.—*Chron. des Arts*, 1892, No. 21.

HISTORIC PLACARDS.—A most interesting series of placards has been placed in all the halls of the Louvre. In each hall the inscription recalls the historical facts that have happened in it, the illustrious persons who have dwelt in it and the artists who have decorated it. They contain in fact a series of biographies which have often necessitated long research. The entire series reconstitutes the history of the Louvre which was for so many centuries the centre of affairs in France and with which all the great historic actors were connected. The director of the national museums, M. Kaempfen, is the author of the entire series.—*Chron. des Arts*, 1892, Nos. 7, 19, etc.

CLASSIC ANTIQUITIES.—An archaic Greek head has been recently placed on exhibition in the hall of Pheidias. It is beardless and is of a style similar to the archaic figures of the Acropolis.—*Chron. des Arts*, 1892, No. 28.

The following also deserve mention :

A decree of patronage dated 257 A. D. on a bronze plaque found at Beneventum : given by the duc de Talleyrand.

Five antique glass objects found at Saïda (Syria), have been given by M. Durighello. They are finely preserved.

Three Greek inscriptions, given by the French School at Athens.—*Chron. des Arts*, 1892, No. 11.

ORIENTAL ANTIQUITIES.—Two Japanese statues have been added to the Louvre by purchase from Mr. Bing. They are seated, or rather cross-legged, figures of wood, with broad draperies and fine decorative effect. One of them dates from the beginning of the XVI century,

and represent Tokiyori, a famous statesman, still renowned in Japan for his sense of justice. The second figure, of more supple but less powerful execution, represents the Buddhist priest Reijoken, who lived in the province of Owari about 900 years ago.—*Chron. des Arts, 1892, No. 6.*

Dr. Fouquet, who has been excavating for a number of years in the neighbourhood of Cairo, has given to the Louvre his entire collection of 800 objects. It has been arranged in the former Hall of the Bronzes, in which the nucleus of Oriental faïences already in the museum had been placed. There is a series of ancient glass (Roman), of Mediaeval (Arabic) and Venetian glass, which was imported into Egypt in the xv and xvi centuries; inscribed glass weights; ancient and Coptic ceramics; Arabic pottery, illustrating all the processes employed; a series of Coptic and Byzantine sculptures, and another of enamels.

The hall in which the collection is placed is to be reserved for Oriental antiquities of this class.—*Chron. des Arts, 1892, No. 7.*

MEDIAEVAL ANTIQUITIES.—M. Gerspach, director of the Gobelins and Mosaic manufactory, has given a Venetian mosaic of the xii century, representing a youthful female head of decidedly Oriental character.—*Chron. des Art, 1892, No. 16.*

The museum is about to receive a mosaic found at Sainte-Colombe-lès-Vienne. The subjects represented in it are the labors of the field, which are accompanied by four allegories of the seasons. A broad frieze surrounds the entire composition.—*Chron. des Arts, 1892, No. 22.*

The Museum has purchased four carved capitals found in demolishing a house in the Impasse des Provençaux, behind Saint-Germain-l'Auxerrois.—*Chron. des Arts, 1892, No. 23.*

PAINTINGS.—A recent and important addition has been made to the small number of paintings by the early French masters. It is a panel representing the Virgin and Child, attributed to the xv century. It was found at Nantes, in Brittany, and was probably painted in France, under Flemish influence.—*Chron. des Arts, 1892, No. 8.*

RENAISSANCE.—A bronze equestrian statuette, with fine patina, from England, somewhat worn but entire. The broad-chested horse carries a small rider in dress armor, holding the reins in his left and in his right a mace which rests on his shoulder. The face, though partly hidden by a boldly-projecting helmet, is a good portrait of Giovanni Francesco II di Gonzaga, Lord of Mantua.—*Chron. des Arts, 1892, No. 18.*

CABINET DES MEDAILLES.—GREEK COINS.—A number of Greek coins recently acquired by the Cabinet des Medailles, have been classified as far as possible and described by M. Babelon. Many of them are

monuments of great historic interest and present a great variety of subjects as well as remarkable beauty of execution. The finest coin described, is a stater of electrum, of the most primitive style. It bears the figure of a crouching female greyhound on one side, on the other, five hollow squares, forming a cross, on each of which is a different symbol in relief. The place of this coin must be fixed among the earliest specimens of electrum coins known: from its elongated form, from the disposition of the cross and its height, the stater would seem to belong to the primitive time of the Kings of Lydia, before Croesus, at an epoch shortly after the invention of coins in Asia Minor. Then follow two hemi-hectes of Kyzikos, in electrum. The first with an anquiped giant, holding a long olive branch; the second with a beautifully executed head of Akteon; 4) a double-stater of Philip of Macedon, having on one side the head of Apollo, on the other a female figure in a *biga* and below, a five-pronged fork. This specimen shows the influence of Greek art upon Macedonian artists: the work of barbarians manifests itself in many ways. Next we have a magnificent silver piece (5) a tetra-drachma of Mithridates the Great, upon which figures a large head of the King of Pontus, modelled with surprising intensity of expression. Then follows (6) an uncertain coin, doubtfully assigned to Cyrenaica, bearing the figure of a bunch of grapes, the principal type of the coins of the islands of the Aegean. 7) a didrachma from Cos, with the head of the youthful Herakles in full face. This type is much more rare than that in profile. 8,) 9,) and 10) are coins of Melos, having on one side a similar design, that of a pomegranite, and on the reverse, respectively, a kantharos, a spear head and an eagle. These three coins were struck in the course of the ivth century. The next 11) is a very rare coin, a drachma of Nisyros, with the head of Apollo and the Rhodian rose. Then follow 12) a Cymean coin, with the head of an amazon and a bridled horse, of a style much older than the ordinary coin of Cyme, 13) a coin of Abydos, bearing a bust of Artemis and an eagle flapping its wings, 14) a bronze piece from Hyllarima, with the draped bust of a woman and a figure in a quadriga, 15) a coin of Liocharax, on which figures a bust of Geta, and, on the reverse, Tyche holding the horn of plenty. Another example of the same coin is in the collection of M. Loebbecke at Brunswick, 16) is a beautiful example of the coins of Tarsus with the head of Antenor. 17) is a coin of Marcus Aurelius from Abyra and Hierapolis, with a bust of the emperor, and on the reverse the figures of Demeter and Apollo Kitharcedos, with hands joined. (18.) A coin from Dionysopolis bears the laurel-crowned bust of Septimus Severus, on the reverse, Dionysos enthroned. This piece is particu-

larly valuable on account of the variety of coins of Dionysopolis. 19) is a coin from Tralles, bearing the head of a veiled woman and a table on which stand a crown of feaves and an urn, below the table is a vase. The female head resembles Tranquillina, which would permit us to assign the coin to the reign of Gordian.—*Revue Numismatique, 1892, p. 105.*

TROCADERO.—The museum of comparative architecture at the Trocadero has received an important collection of photographs of historic monuments of the Departments of Sarthe, Corrèze and Charente.—*Chron. des Arts, 1892, No. 6.*

SEVRES MUSEUM.—SIAMESE POTTERY.—M. Fournereau has brought back from the mission to Siam, on which he was sent by the Ministry of Public Instruction and Fine Arts, a collection of pottery which he discovered on the site of the ancient furnaces of Sâng-Kâlôk. These furnaces are known to have been destroyed in the XIII century. The collection is extremely important for the history of Oriental ceramics, for it discloses the existence of an industry very far advanced and in possession of perfect processes of manufacture and decoration. Some of the pieces show even high artistic qualities, especially a head of Buddha in stone-ware.

FRENCH TILES.—M. Emile Taté has sent an interesting series of glazed tiles, .125 net square, dating from the close of the XV century, from the old abbey of the "Prémontrés" at Braisne-sur-Vesle (Aisne). Fourteen of these tiles represent figures and animals in a stag hunt, done in red silhouette, on a ground of yellow engobe.—*Chron. des Arts, 1892, No. 33.*

ECOLE DES BEAUX-ARTS.—An important step for the study of French Art has been taken through the creation at the Ecole des Beaux-Arts, of a course of the History of French Architecture in the Middle Ages and the Renaissance. It will be a great help in the education of the young students of architecture who desire to enter the service of historic monuments. M. Paul Boeswillwald, inspector of historic monuments, has been appointed to this chair.—*Chron. des Arts, 1892, Nos. 8, 9.*

MUSÉE GUIMET.—EXHIBITION BY M. DE MORGAN.—On September 16, an exhibition was opened at the Musée Guimet, of the results of M. de Morgan's expedition. The archæological collections were accompanied by detailed maps and photographs. These collections extend over a very long period, from the stone age, represented by admirable arrow-heads, down to Persian enamelled work of the XVI century. They include some superb specimens of the bronze age, from the necropolis of the Linkoran.—*Chron. des Arts, 1892, No. 34.*

SALES OF COLLECTIONS.—THE VAN BRANTEGHEM SALE.—The sale of the famous Van Brauteghem collection in July, 1892, brought into the market a magnificent series of Greek vases, many of them signed, and all well known to archaeologists. Not less important were the terra-cotta figures from Tanagra and elsewhere. All brought good prices and were disputed by the museums of Berlin, St. Petersburg, the Louvre, etc.—*Chron. des Arts*, Nos. 25, 26, 28.

SALE OF RENAISSANCE MEDALS, ETC.—In May took place the sale of a private collection of medals, plaquettes, jewelry, etc., which contained fine examples of Renaissance work, including many of the xv century. The pieces by Pisanello were G. F. di Gonzaga (1394–1444); Alfonso of Aragon (1494–1548); F. M. Visconti (1391–1447). Amadeo of Milan is represented by a Borso d'Este (1418–71); A. Marescotti by a bust of Galeazzo Marescotti (1407–1503); Giov. Boldio by a bust of Maserano; Enzola by a bust of Costanzo Sforza of Pesaro (1448–83). Sperandio by a Sigismondo d'Este (1433–1507), by a Nic. Malvezzi (d. 1481), by a Pisciano de Prisciani. The finest plaque was by Andrea Brissco, called Biccio, representing St. George and the Dragon.—*Chron. des Arts*, 1892, No. 28.

SALE OF THE LECLANCHE COLLECTION.—In May the Leclanché collection was sold in Paris. It contained many works of the Italian Renaissance, both sculptures and paintings. We give the attributions of the catalogue in citing the following pieces: *Paintings*—Virgin of the Italian School or xiv century (No. 40); Virgin and Child of the Siennese School of xiv century (No. 38); Virgin and child of Florentine School of xv century (No. 48); “Fidelity,” of do. (No. 47); Holy Family of do. (No. 46); Bust of Youth of Milanese School (No. 45); Holy Family by Botticelli (No. 3); Bust of Virgin by Ghirlandaio (No. 18); Four Angels by Gozzoli; a fine Flippino Lippi, “Esther and Ahashuerus”; a Portrait of Pinturicchio, attributed to Raphael. The Filippino Lippi was bought by the Duc d'Aumale for his Chantilly collection, for 82,000 francs. The *sculptures* were: A statuette of the infant Christ, blessing, attributed to Mino da Fiesole (No. 58); a decorative vase, attributed to Benedetto da Majano (No. 59); a half figure of the Virgin holding the Child, of Florentine School, end xv century (No. 60).—*Chron. des Arts*, Nos. 23, 24, 25.

MEDIEVAL ANTIQUITIES.—On the north slope of the butte Montmartre, some antiquities have been discovered at a depth of ten metres. A part of a tombstone, perhaps of the Romanesque period, with the effigy of a man in armor, with hands clasped and with fleurs de lis decoration. On this site there existed a convent founded in the xii century, by Alix, wife of Louis-le-Gros. Two tin vases were also

found. One has handles ending in horned human heads and springing also from smaller heads. The second vase has a cover on which is engraved the figure of a bishop blessing: it is of the kind that was anciently used to contain water or wine in religious fraternities.—*Chron. des Arts, No. 19.*

PERIGUEUX.—**GREEK MOSAIC.**—During 1891 a mosaic was found in the neighborhood of Perigueux. It has been purchased for the museum of the city. According to the director of the museum, it is in pure arebaic Greek style, consisting almost entirely of geometric patterns, including rosettes.—*Chron. des Art, 1892, No. 24.*

TOULOUSE.—**A NEW MUSEUM.**—The historic building called “College Saint-Raymond,” has been turned into a “Museum of Ancient and Exotic Decorative Art.” It has lately been opened. The antiquities belong to the Egyptian, Greek, Gallo-Roman and Renaissance periods, and are well arranged and for the first time properly exhibited.—*Chron. des Arts, 1892, No. 18.*

SPAIN.

ANCIENT COINS OF SPAIN.—One of the greatest numismatists of Spain, M. Campaner, has just published a new edition of his: *Apuntes para la formacion de un Catalogo Numismatico Espanol*, published in 1857, under the title of: *Indicador Manuel de la Numismatica Espanola*. It is in two parts: the first treats of the ancient coins of Spain, the second of the modern. The antique coinage divides into three grand divisions:

I. Coins issued on the peninsula from the Greek colonization to the reign of Caligula.

- 1.) Coins with Greek and with Graeco-Iberian inscriptions.
- 2.) Anonymous coins of Carthaginian governors or viceroys of the family of Barca in Spain.
- 3.) Coins with Phoenician characters.
- 4.) Coins with Libyco-Phoenician characters.
- 5.) Coins with Iberian characters.
- 6.) Hispano-Latin and bilingual coins.

II. Roman coins, from the invasion of the Romans to their total expulsion from the peninsula under Heraclius.

III. Coins struck in Spain during the domination of the Suevi and of the Visigoths.

- 1.) Coins of the Suevi.
- 2.) Coins of the Visigoths.

A most remarkable advance has been accomplished in the domain of Spanish numismatics, as is shown by a comparison of the two

editions of M. Campaner's work. This is particularly noticeable in the decipherment of Celtiberian inscriptions which are still far from yielding up their secret.—*Revue Numismatique*, 1892, p. 148.

GRÆCO-PHœNICIAN SCULPTURES.—M. Leon Heuzey, who has made a study of the original sculptures found in Spain, near Murcia, at a place called the "Hill of the Saints," recognizes the remains, here, of a Græco-Phœnician art which was naturalized by the ancient Iberians. He thought research on the spot necessary to clear the question completely. M. Arthur Engel responded at once to his call, was charged with a mission in Spain, and began his work with great promise, for, through him, M. Heuzey was enabled to lay before the Academy numerous casts, besides original fragments, heads and trunks of statues much mutilated, but showing workmanship more rustic than that of the Cypriote sculpture, and a local character strongly marked, giving curious representations of the odd costumes of the people, particularly of the women. It adds to the interest in these discoveries that they were not all made on the original site of excavation, but at other points quite remote, as at Monte Allegre and Albacate. At the latter place M. Engel found a curious human-headed bull, in the description of which M. Heuzey points out various details of technique recalling the monuments of Chaldea and Persia. He believes that, if the archæologists interested in Iberian antiquities would direct their research to this region, they would discover much material bearing upon that demi-civilization which preceded the Roman colonization in Spain.—*L'Ami des Monuments*, 1892, p. 121.

ALMEIRA (NEAR).—**DISCOVERY OF A ROMAN CITY.**—The vice-consul of France at Almeira reports to the *Acad. des Inscr.* that at a place between the villages of Agua Dulce and Roquetas, about 16 Kilometres from Almeira, the discovery has been made of the ruins of a Roman city, whose frontage extends over a length of two kilometres. The local archæologists are not in accord in the real name of this city; some believing it to be Tuarraniana, others Virgi.—*Chron. des Arts*, 1892, No. 16.

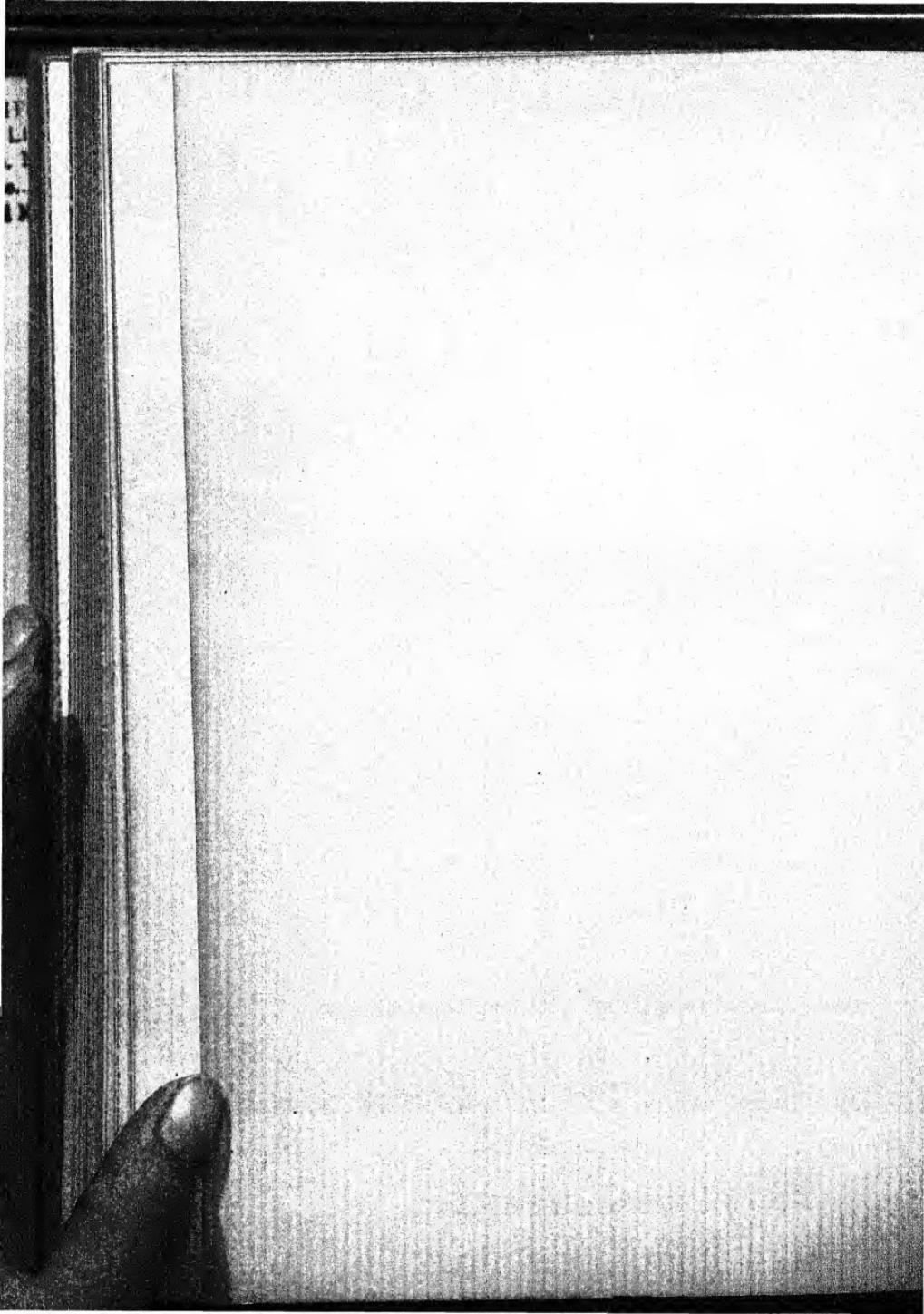
MADRID.—**RETROSPECTIVE EXHIBITION.**—In celebrating the centenary of the discovery of America, the Spanish government has organized a retrospective exhibition in the new Palace of the Arts, constructed at a cost of about twenty-two millions of francs, which is to contain the National Library, Archaological Museum, Ethnological Museum, etc.

The Retrospective Exhibition is the first of such importance in Spain. For the first time the Cathedral and other church treasures have been opened up, and their superb and historic works of art shown to the public. To these are added the Crown collections, the

principal objects of the Archæological Museum, of the public libraries of Madrid and the other main cities, and selections from private collections.

It is especially remarkable for the large number of old paintings of the primitive schools of Castille and Aragon, derived in great part from the Early Flemish School, for its tapestries and embroideries, its illuminated manuscripts and early block wood cuts. It is singular that the churches have sent but few ivories and works in precious metals. Among the Court collections are to be noted from the palace of Madrid some superb Flemish tapestries and gold-work, from the convent at Las Huelgas at Burgos, the great Arab standard taken at the battle of Las Navas de Toloso, and the gold cross of the kings. From the store-houses of the Escorial come some almost unknown superb paintings; a triptych by Jerome Bosch and a magnificent Crucifixion by Rogier Van der Weyden.—*Chron. des Arts, 1892, No. 34.*

A. L. FROTHINGHAM, JR.



TERRACOTTA MEDALLIONS OF OR SAN MICHELE.

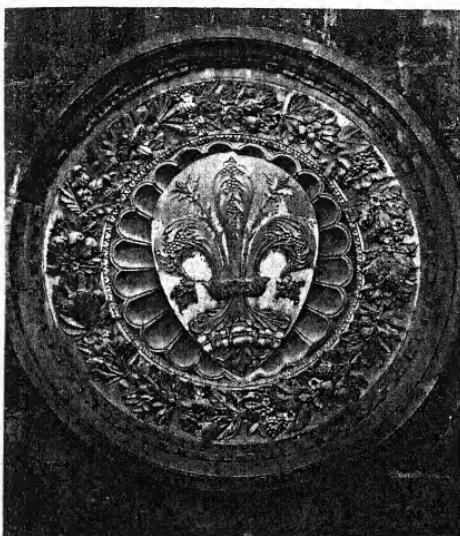
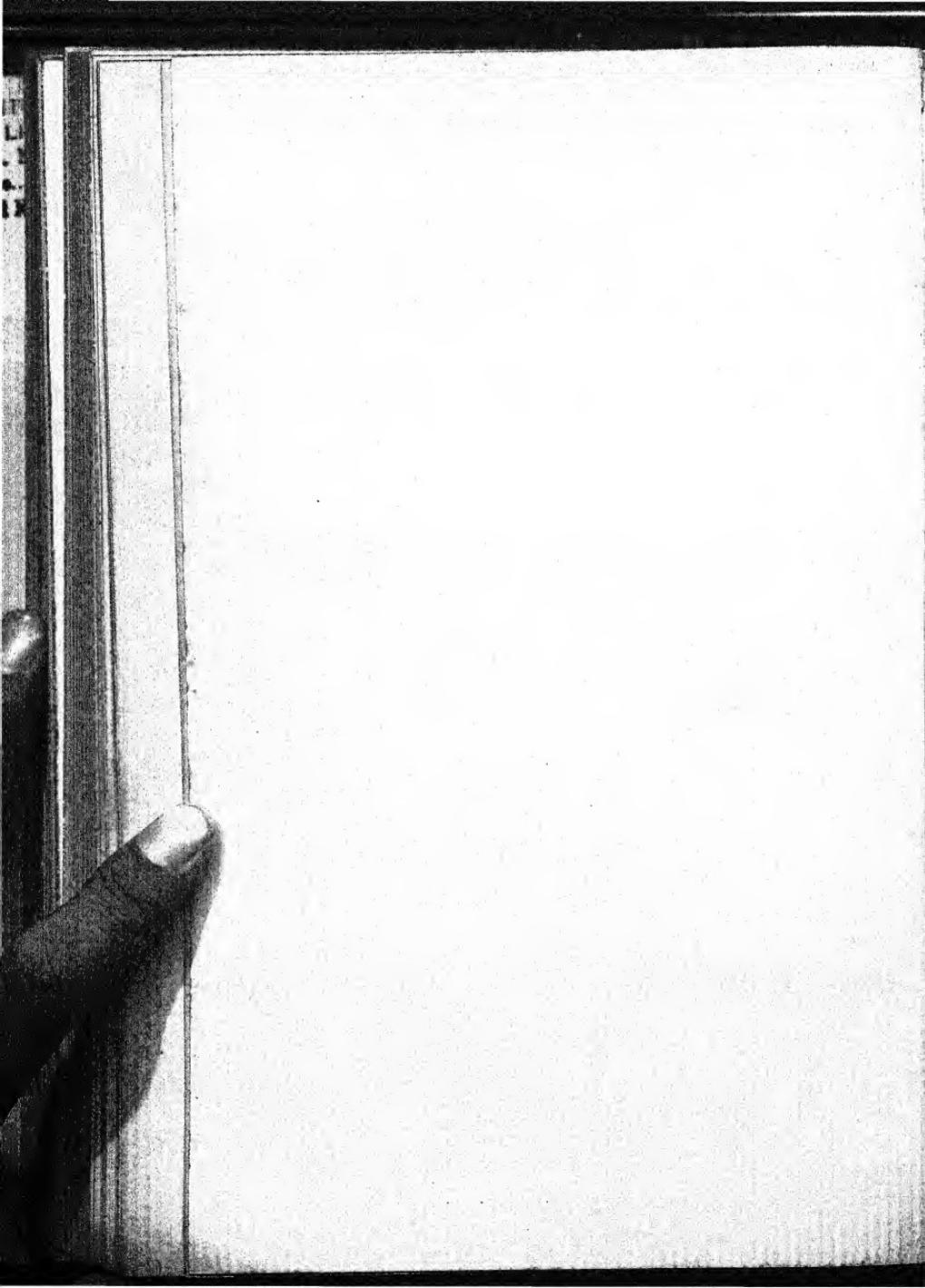


FIG. 1. MEDALLION OF THE COUNCIL OF MERCHANTS. LUCA DELLA ROBBIA.



FIG. 2. MEDALLION OF THE MASTER WORKERS IN STONE AND WOOD. LUCA DELLA ROBBIA.



TERRACOTTA MEDALLIONS OF OR SAN MICHELE.



FIG. 1. MEDALLION OF THE PHYSICIANS AND SPECIALISTS. LUCA DELLA ROBBIA.

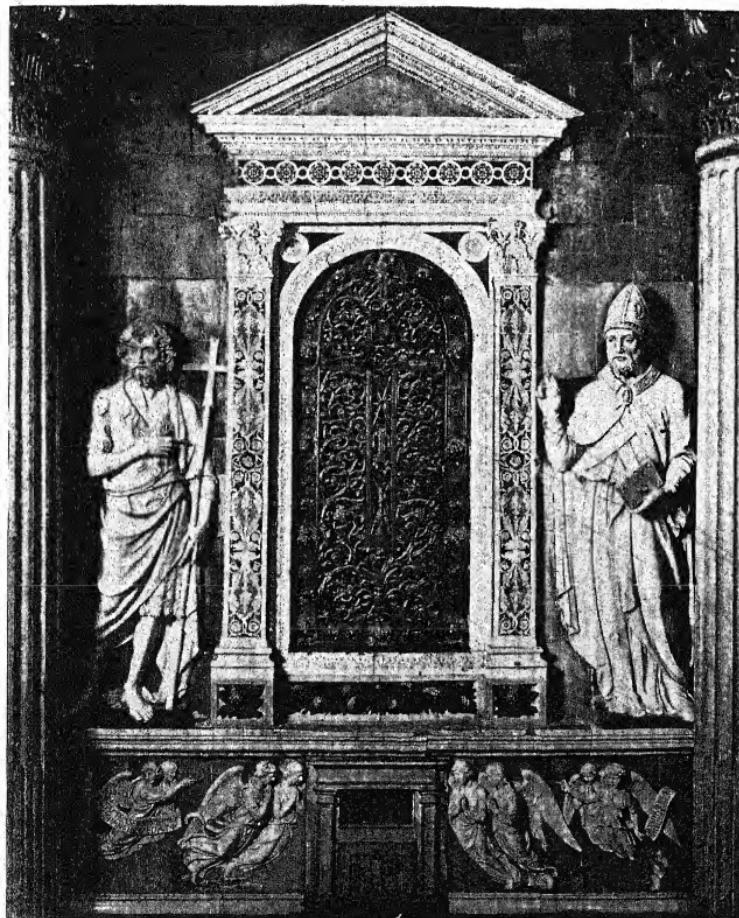


FIG. 2. MEDALLION OF THE SILK MERCHANTS.
LUCA DELLA ROBBIA.



FIG. 3. MEDALLION OF THE BUTCHERS.
MODERN.



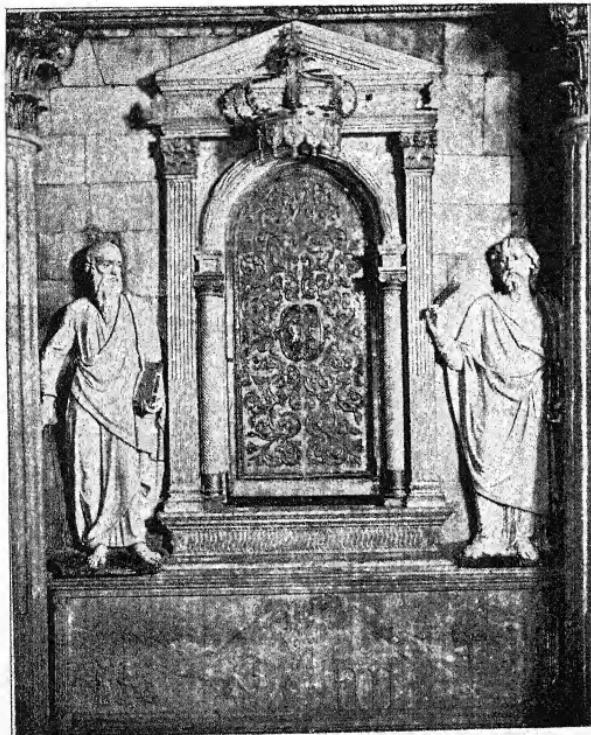


ALTAR OF THE HOLY CROSS, IMPRUNETA. LUCA DELLA ROBBIA.

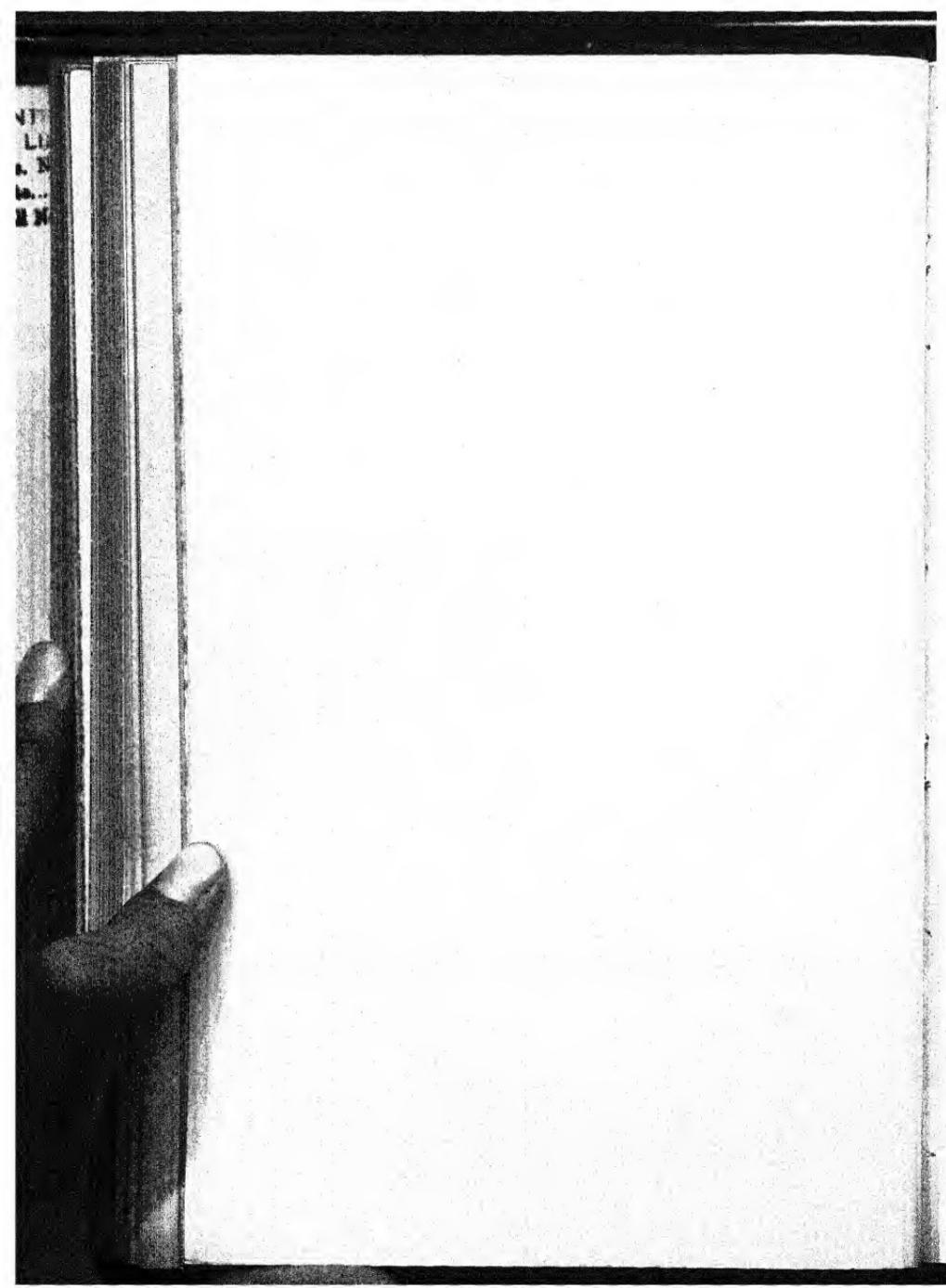


JOURNAL OF ARCHAEOLOGY.

VOL. VIII. PLATE VII.

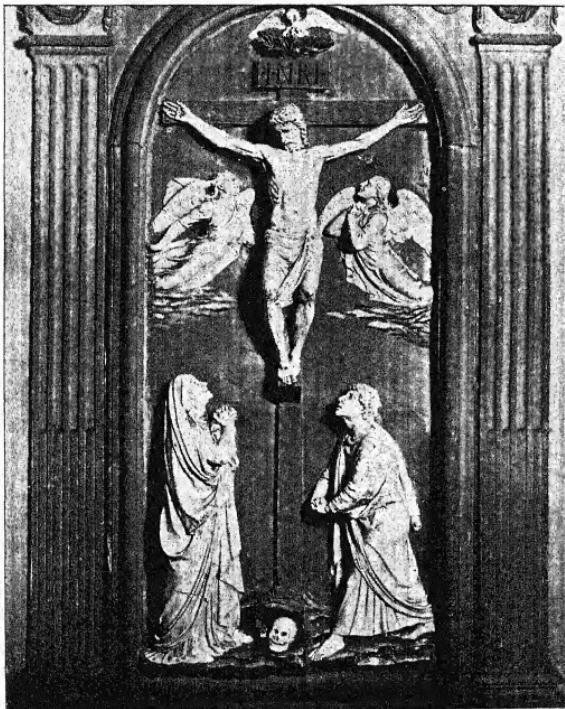


ALTAR OF THE MADONNA, IMPRUNETA. — LUCA DELLA ROBBIA.



JOURNAL OF ARCHAEOLOGY.

VOL. VIII. PLATE VIII.



CRUCIFIXION RELIEF, IMPRUNETA. LUCA DELLA ROBBIA.

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VOL. VIII. PLATE IX.

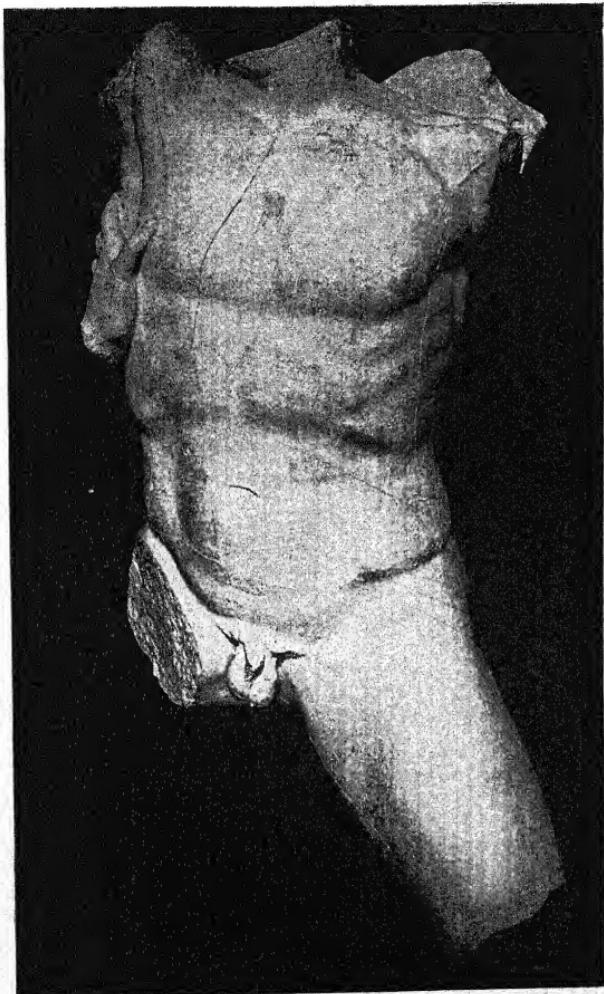


HEAD OF HERA FROM THE ARGIVE HERÆUM.

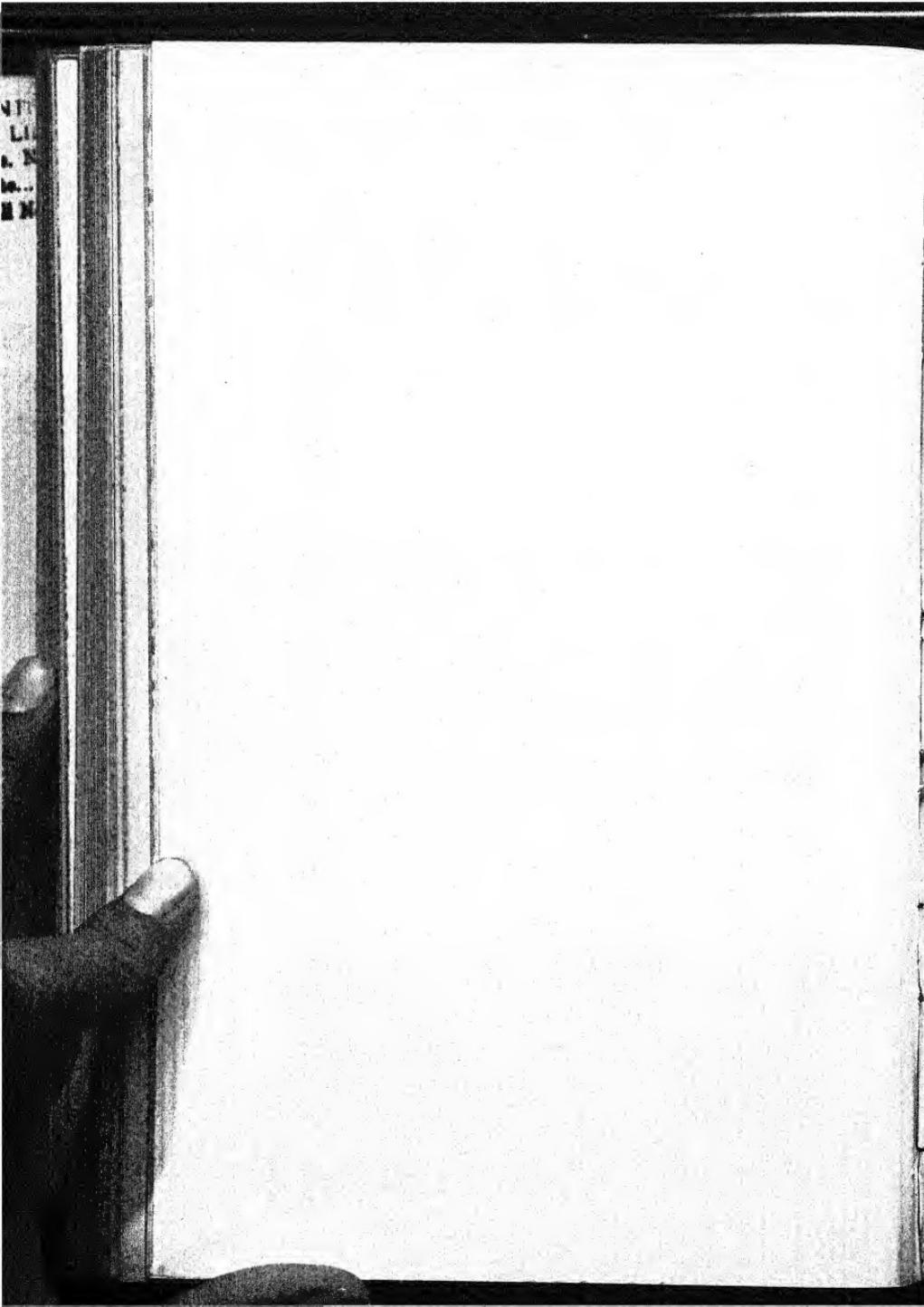
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JOURNAL OF ARCHAEOLOGY.

VOL. VIII, PLATE X.

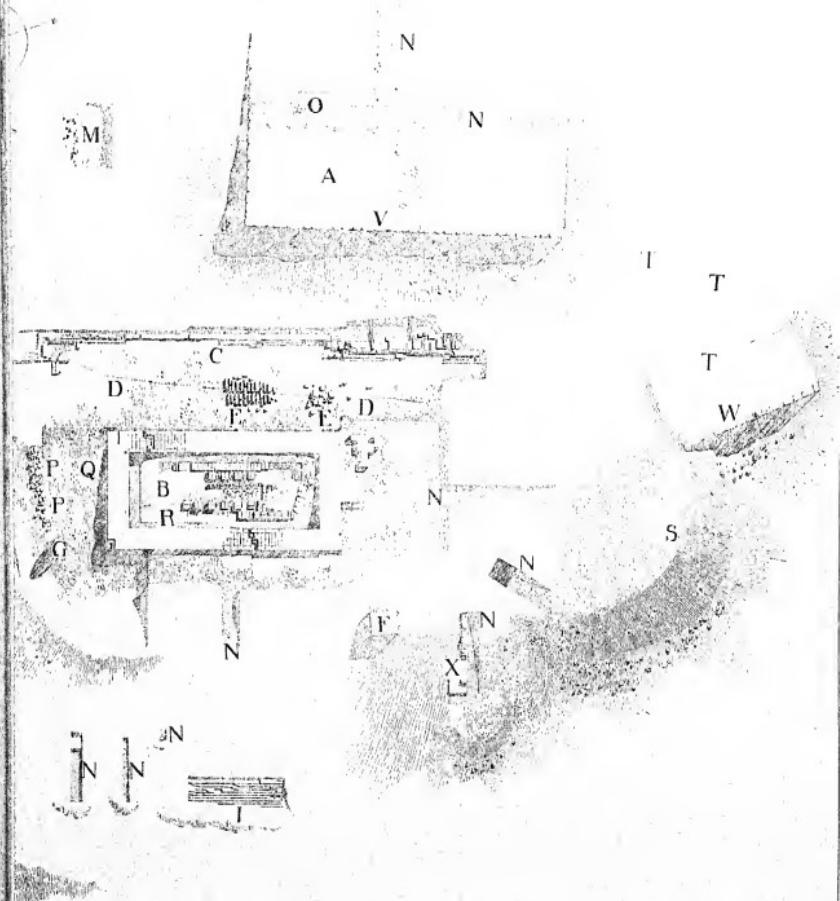


METOPE FROM THE ARGIVE HERAEUM.

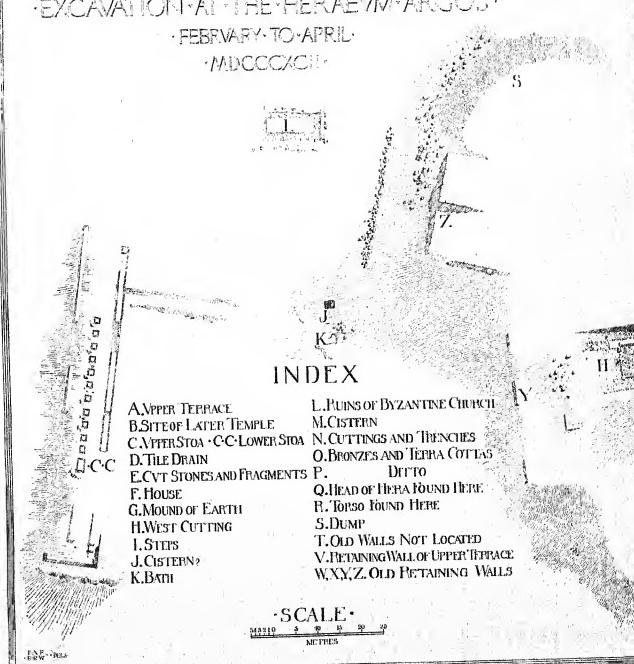


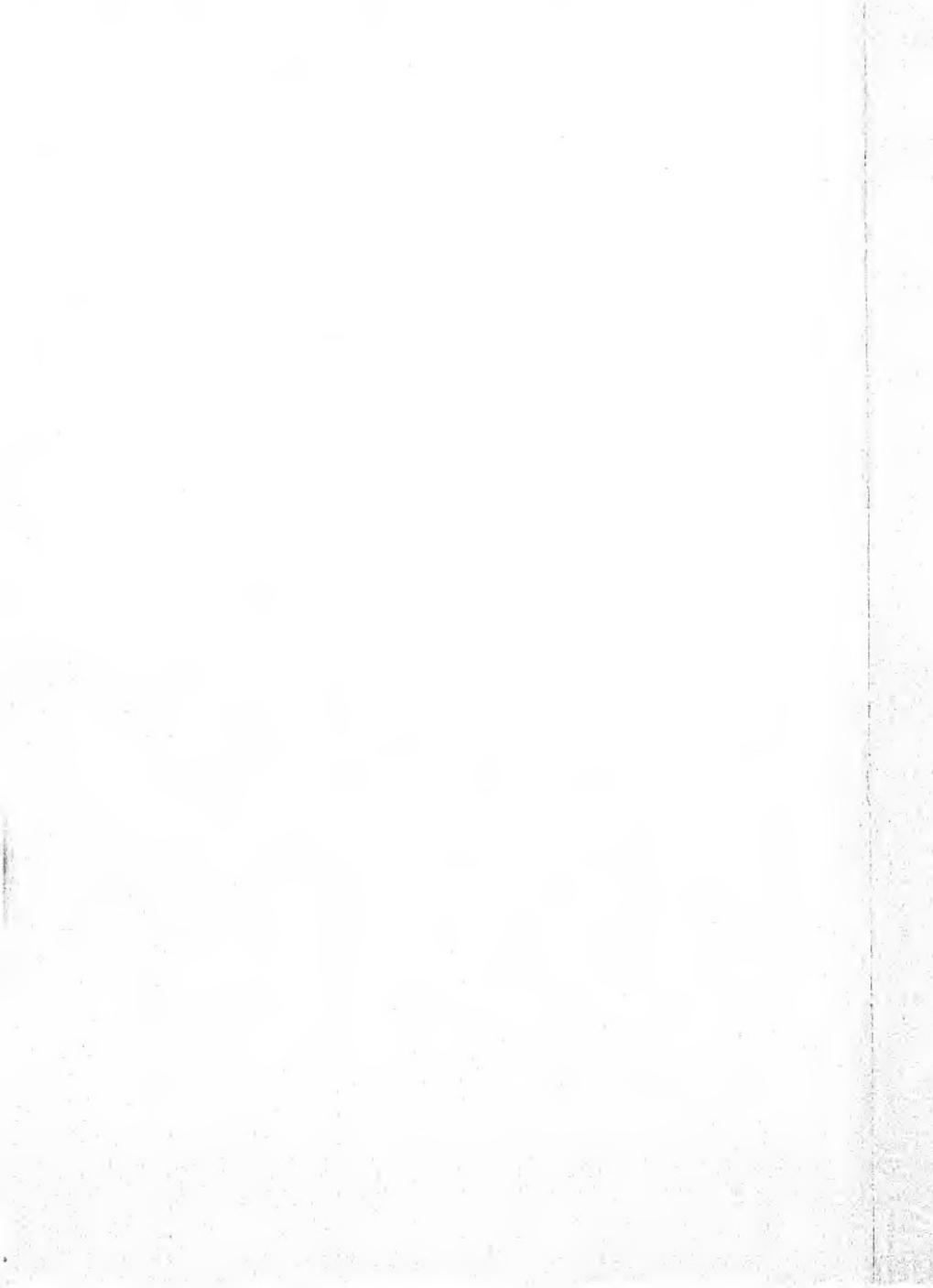


HEADS AND FRAGMENT OF SIMA FROM THE ARGIVE HERAEUM.



AMERICAN SCHOOL OF CLASSICAL STUDIES
MAP OF
EXCAVATION AT THE HERAEUM ARGOS
FEBRARY TO APRIL
MDCCCLXII





AMERICAN JOURNAL OF ARCHAEOLOGY.

Vol. VIII.

JULY-SEPTEMBER, 1893.

No. 3.

NOTES OF EASTERN TRAVEL.

The Ancient Roman Road from Philadelphia to Gerasa.—It was Wednesday, September 3, 1890, when I left Amman (Philadelphia) *en route* for Jerash (Gerasa). I had intended going by the usual roundabout road through Es-Salt, but Fellah, the 'Adwan chief who acted as my escort, preferred to avoid that government post, and proposed that we should take the direct road to the east of Mount Gilead. As an inducement he promised to show us an unknown ruin and an uncopied inscription. On the small maps which I had with me this region was a perfect blank, and I accordingly accepted the offer. In point of fact, this route had been traversed by Guy le Strange (who describes it in Schluhmacher's *Across the Jordan*), Selah Merrill, Laurence Oliphant, and perhaps others. But the number who have visited it is very small, and the region has been as yet but imperfectly explored. Conder failed to survey this part of the country on account of the interference of the Turkish authorities, who brought the East-Jordan survey to an abrupt termination and expelled the explorers. The road, which I do not find on Kiepert's maps, is correctly laid down in Fischer-Guthe's *Neue Handkarte von Palästina*.

Starting from our camp toward the southeastern end of the ruins of Amman, we descended the Wady Amman to the northeast until we had reached the end of the ruins in that direction, then we turned up a ravine to the west, where were rock-cut tombs. Ascending the side of this ravine we found

ourselves on a paved Roman road leading north. After riding for about an hour over a barren, stony plateau, we entered a hill country, wooded with oak and terebinth. Two hours from Amman we found some columns standing by the side of the road. These were plain shafts, unadorned and bearing no marks. Ten minutes later we came upon the extensive ruins of Yajuz, or Kom Yajuz, lying along the little Wady el-Ham-mam and the hills on both sides of it. No one has yet found any inscriptions in these ruins, but capitals of columns, ornamental shell-shaped niches, a stone lion and an eagle, which were lying about the well at the time of my visit, as well as the ornamental stone-cutting, which I found in some of the houses, indicate clearly that they belong to the late Roman period. And here I may add, a fact which I have not seen noticed elsewhere, that while in the Moabite country, as at Ma'in, Madeba, Hesban, and el-Al, the ruins which strike the eye belong in general to the sixth post-Christian century, the ruins farther north, beginning with Kharabat-es-Sukh, a little south of Amman, are several centuries earlier.

Merrill has suggested the identification of Yajuz with Gadda, mentioned in the *Tabula Peutingeriana* as on the road from Damascus to Philadelphia, thirteen Roman miles from the latter, and eleven miles from Hatita or Haditha, which he identifies with Kal'at ez-Zerka; but according to my itinerary Yajuz is a little less than six Roman miles from Amman, which agrees with the distance as given in the Fischer-Guthe map referred to above. Whatever the city was it was a place of considerable size about 200 A. D., but apparently unfortified. It is not mentioned by the Arabian geographers and historians, and would seem to have fallen into ruins before their day.

One hour and twenty minutes beyond Yajuz we came upon several fallen columns lying on the east side of the road. Le Strange says: "Where the road runs along the western slope of a shallow valley, we passed fragments of six more broken columns"; but he failed to observe the inscription of Severus which was on the under side of one of the fallen columns. This was a monolith of white limestone, not less than nine feet in length, broken at the top, and with a large square pediment. The inscription was on the under side, only a few

letters being visible in the position in which the column lay. Fellah told us a story about fifteen Frenchmen whom he had brought to this place, and who had been unable to turn the column so as to examine the inscription. And certainly it was a difficult stone to move both on account of its weight, and still more on account of the large square pedestal which held it firmly anchored. However, Mr. Tod, my servant Hajji Kework, and I scooped out with our knives and fingers a deep hole the length of the column, and then pried it down into the hole by means of a terebinth bough as a lever. In this manner we turned it completely over, and I was able to copy the whole inscription, which proved to be an inscription of Severus, as given in Professor Merriam's article in this JOURNAL (No. 1). Near this lay another plain shaft marked thus : + II +, while on a third column there was, according to my day book, an inscription ; but if so I either failed to copy it, or have lost my copy. The point at which these columns lay is marked on the Fischer-Guthe map as a ruined site named Safut. I saw no other ruins and did not hear this name.

One mile beyond this Le Strange reports "the shafts of two broken columns" of white limestone, one a monolith nine feet in length, near the point at which a road to Es-Salt branches off from the old Roman road. These two columns I failed to see.

One hour and twenty-five minutes beyond the inscription of Severus we found at the bottom of a valley a well called 'Ain Kamshe, where we encamped for the night. This is thirteen Roman miles from Amman, on the road to Damascus, and would therefore correspond with the position of Gadda as given in the Tabula Peutingeriana. It should be said, however, that, excepting the well itself, we saw no remains of antiquity ; but such a well in that country must always have attracted to itself some sort of settlement in the days when the country was settled. What rôle, if any, Gadda played in history, and what was the origin of the name I have been unable to ascertain. The name certainly looks as if it were merely a Greek or Roman form of the ancient Hebrew Gad, which was one of the names of this district, so that even the Wady Zerka seems to have been called by the Hebrews Nahr-Gad (2 Sam. xxiv. 5).

Shortly after leaving 'Ain Kamshe the next morning we lost the Roman road, and found ourselves following a mere track due north. One hour and thirty-eight minutes after leaving 'Ain Kamshe we came to the insignificant ruins of Jubba, which I have not found on any map. Apparently it was a town of about the same period as Yajuz, but small and unimportant. An hour later we were in the deep valley of the Zerka, with its wide stretches of pebbles and its beautiful groves of oleanders. On the other side we found the Roman road once more, ascending the Wady Jerash to the ancient Gerasa, which Merrill would identify with the still more ancient Ramoth Gilead. Along this road we found three old Roman milestones in place. The first of these, which we found twenty-nine minutes after crossing the Zerka, was marked IIII. On the next, which we passed nineteen minutes later, I observed no mark, nor on the third, which was thirty-seven minutes further on. Between these two evidently one stone had been lost.

Inscriptions at Jerash. The Propylaeum.—The arch has fallen, and the stones lie piled together in a great heap extending down into the street. I copied every inscribed piece which I could find in this heap, but had no means of removing the stones, or even turning them over. I also endeavored to photograph everything, but by a piece of rascality, the removal of a lens, these and a large number of other would-be photographs were destroyed. Within the last few years the Turkish government has granted Jerash to a colony of Circassian refugees from the Caucasus. They have settled on the east side of the stream, in that portion of the city formerly used for residences, and not in the part in which the temples and other public buildings stood. They are utilizing the ruins to furnish material for their houses. In the wall of one house I saw an inscription upside down, which I could not copy, but photographed, and have therefore lost. The same was true of another inscription utilized in the building of a wall. They were neither of them, however, of any especial importance. Doubtless every year the Circassians dig up several such stones. (At Amman also something of the same sort is going on, and a fine-looking Nabathæan inscription was dug up there the day I left the place, but I was unable to get more

than a glance at it.) In the immediate neighborhood of the propylæum building there must be a considerable amount of inscribed material, even the columns in the streets at this point bearing inscriptions. Very little labor among the heaps of stones lying in front of the propylæum, and in the basilica which is opposite it, would probably be rewarded by the recovery of a number of new inscriptions. Unfortunately, I was unable to accomplish this labor. The only new inscription which I brought back from Jerash was one found on a gravestone (see No. 2, in Professor Merriam's article) in the cemetery to the north of the town. My other inscriptions had already been published. But Professor Merriam has found among my notes some material for the correction of the inscription of Antoninus Pius on the great arch of the propylæum (*Ibid.*, No. 3).

In excuse of my apparent supineness regarding inscriptions I must say that I visited the east of Jordan merely as a tourist, for my own information, and with no idea of finding any unpublished inscriptions. In fact I supposed that everything had been copied and published. I had been in the saddle for four months, riding through Irak as far south as Mugheir (Ur), then up the Euphrates, and through Palestine in midsummer, and was much exhausted. My time was limited. I had had no opportunity to look up publications beforehand and make notes for my guidance, and had only a general knowledge of what had been done. I did not know, when I started for Palestine, that I should be able to do more than follow in the usual beaten tracks, and made no material provision for work. As the result of my brief experience east of Jordan I can say that there are still abundant gleanings of Greek and Latin inscriptions, generally the former. Even at Bosrah, where I supposed that everything had been copied, I saw in the underground passages of the citadel (the old theatre) a Greek inscription of considerable length, which seems to have escaped observation; at least I have not found it among the published inscriptions from that place. Unfortunately I did not copy it, because I supposed that it had been long since copied and published, and an attempt on my part would have meant lights and time, and therefore not

merely backsheesh, but permission and suspicion, with danger of delay.

Palmyrene Roads.—In his notice of the Wolfe Expedition to Babylonia, Professor Sterrett has published four milestone inscriptions found between Rakka or Erek (Aracha) and Tadmor (Palmyra), with a notice of three milliaria or fragments of milliaria from the same stretch of road. I can add to these one more stone, found three hours and eighteen minutes beyond Erek on the road toward the Euphrates. It was apparently a milliarium, but of unusually large size. It had been broken, and only one large fragment, seven feet or so in length, and a good two feet at least in diameter, was to be found. It was much covered with gray lichen, and the inscription, which was not deeply cut, was for the most part illegible. Out of seven lines I could read only a few scattered letters in the last four (*Ibid.*, No. 4). The stone and the inscription did not resemble the stone and inscription on the eighth milestone from Palmyra, a Diocletian inscription (*cf.* Sterrett, *Papers of the Am. School of Class. Studies, Wolfe Expedition to Asia Minor*, No. 634), but did resemble another stone, also copied by Sterrett, which lay further out from Palmyra (Sterrett, No. 633).

Sterrett passed out of Palmyra going west by the Homs route. I entered it on my way from Beirut to Baghdad, in November of 1889, by the Kurietain road, and returned over the same road in July of 1890, and was much impressed with the remains of ancient road stations of the Palmyrene period on that route, of which I have read little in descriptions of Palmyra. On this southwestern road, two hours and twenty minutes from the mouth of the little pass through which one leaves Palmyra, almost in the middle of the plain, are the remains of quite a large building, and there also stands erect at this point a column, similar, except for its lack of inscription, to the Diocletian milliaria on the road from Palmyra to Aracha. Four hours and forty minutes beyond this, on the direct line through the plain to Kurietain, is a very deep ancient well, now called 'Ain el-Bweida. An ancient column was still standing here, but no inscription was visible. There was evidently an old road station at this point, and to-day the Turks have a miserable little garrison of two or three gendarmes stationed by the well.

Seven hours and ten minutes beyond this, still on the straight line to Kurietain, lies the picturesque and striking ruin of Kasr el-Hair. Here were standing the ruins of a tower some fifty feet in height, and originally forty feet square at the base. The construction was characteristically Palmyrene, and on one of the corner stones halfway up the tower were two sun discs, one plain and one with curved radii. By the side of the tower was a building of brick and stone, surrounding a large court, some two hundred feet square, and entered by a very ornamental stone gateway on the east side. This had evidently been a caravanserai. Outside of the walls and tower were a couple of smaller ruins, and near one of these an ancient well, now choked up. Half a mile to the north is another gateway, similar to the one mentioned above, but almost entirely without the rich and elaborate carving by which that was adorned. The building belonging to this gateway had quite disappeared, but not far away were the ruins of a large reservoir. This obtained its water through an aqueduct which runs several miles across the plain to Sedd el-Berdi in the mountains southward. Here are the ruins of a dam across a ravine, by means of which in the rainy season water was stored for use in the dry. The whole equipment of this station was singularly interesting and complete, but I have never seen it described by any traveller.

Seven hours and thirty minutes from Kasr el-Hair, across a perfectly level plain (Kiepert's map represents incorrectly a chain of hills as partially crossing the plain at this point) lies Kurietain, some, ancient Kiriathaim, the most important station on the road from Palmyra to Damascus. Here there is plenty of water, including hot sulphur springs, and a town of some importance has always existed. Several fragments of inscriptions, for the most part copied by others (but cf. Prof. Merriam's No. 5), I found built into walls, one inscribed stone forming the lintel of the gateway of a courtyard.

It may not be amiss to add a word regarding the roads to the east of Palmyra. We have seen that Roman milestones are found beyond Rakka (Aracha), the first station beyond Palmyra. In addition to these milestones, we find at certain distances the ruins of ancient guardhouses, giving evidence of the necessity of protection along this frontier road. At

Sukhne, between eight and nine hours beyond Rakka, there is running water, and also hot sulphur springs. There are visible here the foundations of ancient buildings of considerable extent. Evidently Sukhne was a town, and probably a bathing resort of some sort, in the Palmyrene and Roman periods. What its ancient name was is not known. From this point the present track to Babylonia leads a little north of east to Jubb Kabakib, or deep well of Kabakib, seventeen hours from Sukhne. Between these two points I found no trace of old roads, but at Kabakib, besides the well, which is ancient, there are the ruins of a reservoir and aqueduct. The same plan for collecting and storing water had been pursued here as at Kasr el-Hair. From this point the official Turkish route leads to Deir on the Euphrates (Kiepert's map indicates a sort of wady as leading from Sukhne to Deir, forming a natural route, but no such wady exists), but the traditional caravan route is from Kabakib to the old castle of Rehaba, a long day's journey further down the river. This is a shorter and more natural road than the one to Deir. Rehaba itself is an Arabic ruin of a rather late period, but built apparently upon a much earlier fortress. There was quite a centre of population hereabout in the Arabic period. There are several ruined villages along the bluff of the desert plateau near Rehaba, and the plain of the Euphrates, which is unusually broad at this point, is strewed for miles with fragments of glass, brick, and pottery, and dotted with ruined mounds. Two of these *tells* on the edge of the river are occupied by good-sized modern villages, Meyadin and Ishara, but the earliest remains which the natives seem to have discovered in such part of those *tells* as they have disturbed do not antedate the close of the seventh post-Christian century. A little above Rehaba occurs the junction of the ancient Khabour with the Euphrates, and there, on the northern bank of the Euphrates, stood Circesium. In view of these facts, I should suppose that the ancient road certainly joined the Euphrates at Rehaba, and not Deir. One day's journey below Rehaba, where the river presses close against the southern bluff, some two hundred feet in height, stands in a commanding position the fine ruin of Salahiye. Although bearing the name of Selah-ud-din, this is manifestly a Pal-

myrene ruin, and marks the eastern limit of the Palmyrene dominions in the strict sense, as does Halebiyeh or Zenobieh (ancient Zenobia) the western. What was the ancient name of Salahiyeh I have been unable to ascertain, or whether there was a direct route from Sukhne to this point.

Certain it is, however, that in the Palmyrene and Roman period there was a direct road northward from Sukhne to Ragga, ancient Nicephorium, on the Euphrates. This road passed through Resafa, the biblical Rezeph, a city important and famous in Hebrew and Assyrian times. Resafa was visited in 1838 or 1839, at the time of the English survey of the Euphrates, and reported to be a finely preserved ruin of the Byzantine period. Later travellers failed to reach it, and among others Sachau. I was equally unfortunate. Moreover, Arabs, who professed to have visited the site, assured me that there was no longer anything standing. This seemed not improbable, in view of the changes which had taken place in the neighboring Zenobia between Chesney's expedition and our own. But last winter Mr. Haynes succeeded in visiting the place on behalf of the University of Pennsylvania expedition to Babylonia. He writes me as follows :

"Resafa appears to have been an important city in the early centuries of our era, as a large church of the third or fourth century attests.

"The walls still stand, but being built of soft gypsum (pure and white) are badly crumbled in places. The city was built four square, with its sides to the cardinal points and enclosed an area of more than sixty acres. Its beautiful gate is worthy of more time and attention than I could give it. The city was supplied with splendid cisterns, both within and without the walls. Some of these cisterns are perfect to-day. The soil is excellent, too, and altogether it is a charming spot for a desert city."

El-Uz and El-Khuthr.—On the basis of a couple of fragmentary inscriptions I have perhaps roamed over an inadequately large territory in my notes, and yet, finding myself in the region of the Euphrates, I cannot refrain from wandering still further, and adding a brief note on two sites, the origin and meaning of whose names seem to have been over-

looked by all travellers. In the Euphrates, some three days' journey below Anah, lies the island town of el-Ouzz, as it is given on Kiepert's map, or el-Uz, or Alus, as given by others. This is merely the name of the ancient Arabic goddess el-'Uzz, and the town was evidently named after her in the same way that Anah was named after Anat. That the name is ancient is shown by the fact that Roman writers call it Alusa.

Half a day's journey south of Samawa, on the east bank of the Euphrates, and about three hours from the ruins of the ancient Urnuk or Erech, is a place called by Kiepert el-Khidr, by others el-Khuthr. There is at this place a grove in which all life is inviolable. It is, in fact, an ancient pre-Islamic sanctuary of a well-known type. It was called, apparently, in common parlance, el-Khudhr, or "the evergreen." In the Moslem period that name came to be applied to the prophet Elijah, and consequently to-day this grove, with its ancient heathen right of sanctuary, is held sacred to Elijah.

Inscription from Yer Kapu Broussa.—This inscription is in the gate of the old wall known as Yer Kapu, on the left-hand post as one goes out of the city, at about the height of a man's head and upward, and is much chipped and worn, so as to escape ordinary observation. It was shown to me by the Rev. Mr. Crawford, A. B. C. F. M. missionary at Broussa, with whose assistance I obtained several rubbings.

I also photographed an illegible inscription on a large, badly flaked block of marble lying in the street opposite a café, near the Hissar Kapu, in the upper city.

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THE TOPOGRAPHY OF SPARTA.

"For if the city of the Lakedaimonians should be laid waste and there should only be left the sanctuaries, and the foundations of structures, I think that notwithstanding its splendid achievements there would be among posterity much disbelief in its former power."—THUKYD. I. x, 2.

Our sole guide-book to ancient Sparta might have been written with greater exactness and detail than it has been, had Pausanias, like Thukydides, looked into the future and foreseen the well-nigh utter obliteration of every landmark there. The old archaeologist must have undoubtedly experienced the difficulty of identifying sites in an ancient city that had been razed to the ground. We find him at any rate in Roman Corinth searching for every remnant and landmark of the former city, which Mummius had so utterly destroyed. Yet his own experience seems not to have awakened in him any thought that Sparta might some day suffer the same fate as Corinth, and that future archaeologists would have no other source than his book for rebuilding her in the imagination. His account of Spartan topography is a most harrowing combination of precision and vagueness. At times he appears almost to be mocking his puzzled readers. After carefully locating for us each building along some avenue, with a bountiful use of such expressions as, "near," "opposite," "to the left of," "behind," etc., he suddenly informs us that, "the Lakedaimonians have a building called so-and-so," or "a place in Sparta has such-and-such a name," without further particulars as to just where this building, or that place, may be in the wide limits of the city. Again, on but one or two occasions does he tell us whether a street runs east or west; elsewhere the points of the compass are wholly neglected. The hills on the ancient site which might have served us as excellent landmarks in the topography, had they been carefully described and located, are on the contrary so vaguely referred to that we are more confused than helped by his mention of them. This inaccurate style of description has naturally produced much dismay and disagreement

among modern topographers. Some (*cf.* Baedeker, p. 274, and Joanne, p. 252) despairingly assert that nothing certain can be gathered as to the site of any object save the theatre, the ruins of which still exist. Others, more hopeful, have attempted to identify the various hills, to locate the Akropolis, the Agora and the Dromos, to trace the direction of the principal streets, and even to find a place for each temple and tomb mentioned by the old "periegete." But the unhappy product of all their labor has been a crop of "Plans of Ancient Sparta," each differing widely from the others, the only stationary site in all being that of the theatre, about which there can luckily be neither doubt nor disagreement.

Indeed, we might consider the question of Spartan topography an insoluble one, were we forever to be left to our own interpretation of Pausanias' language, with no further aid than the present site of Sparta affords, together with the few stray allusions in other ancient authors. Excavations, however, have been already begun under the direction of the American School at Athens, and although small results have as yet been arrived at, it is probable that in the near future, when the work is resumed, much light will be thrown on many points which otherwise might remain under endless dispute. Since this excavation may not be continued for another year, there is still opportunity left for theorizing on the question of Pausanias' route through the city and for presenting one more "plan" which may or may not receive corroboration from the opening up of the soil. In the year 1890 the first separate treatise on the subject of Spartan topography appeared in the shape of a pamphlet by Dr. Heinrich Stein entitled *Die Topographie des alten Sparta*. Previous to this work we find the topic discussed in a less thorough way by various travellers and topographers, chief among whom are Leake, Wyse, Curtius, Bursian, and Beulé. The last words in the controversy, however, have been written by a modern resident of Sparta, formerly instructor at the gymnasium in that town, and at present filling the same position at Gythion, the port of Sparta. Professor Constantinos Nestorides has had the inestimable advantage, over all other writers on the subject, of living on Spartan soil and of being thoroughly acquainted with every foot of ground he de-

scribes. His neat little pamphlet, *Τοπογραφία τῆς Αρχαίας Σπάρτης*, was presumably completed previous to the commencement of excavations in the spring of 1892, since he announces with evident satisfaction on the last leaf of his pamphlet that these excavations completely confirm his views as to the site of the Agora and the circular building of Epimenides, whereby he indulges confidently in the hope that all his opinions will be proved equally correct. That the learned *ναθηγητής* is mistaken in some of his judgments, and that future excavations will not endorse his theories as generously as he expects, is the conclusion to which I have arrived after several visits to the ancient site as well as a careful and prolonged study of the subject in all its details. Discarding for the most part all the various views of former topographers, I will chiefly confine myself to a criticism of this latest and most complete monograph by Professor Nestorides, looking forward with anxious expectation to the time when the pick-axe and spade shall finally decide whose plan came the nearest to the truth.

PAUS. iii.-xi.-1. "Advancing from Thronax, the city is reached which was originally named Sparta but which came in time also to be called Lakedaimon, a name that was applied up to that period to the whole territory. Now, before my account of the Spartans, I will declare my method of description, the same which I adopted in my treatise on Attika, namely, not to describe everything, one after another, in detail, but to select what is most worthy of mention. For my plan from the beginning has been to pick out what is most important from what each people say about themselves, the whole mass being vast and much of it not worth mentioning. Considering that my resolve was a good one, I shall not depart from it anywhere."

Whatever other faults he may be guilty of as archaeologist or art critic, Pausanias seems to have been possessed of some sense of system and method in his topographical tour through Greece. The general arrangement of his entire work is at once both comprehensive and compact. His route through each of the divisions of Greece follows a most regular plan. That his circuit of each separate city was also methodically undertaken can be more readily believed than that he wandered about aimlessly, regardless of all harmony and continuity in his note-book. His very method of eliminating what was unimportant rather tends to make us believe that he had other methods also, and among others a method of describing the streets and buildings of a city in as close a consecution as

was possible. If we read his account of Corinth, of Thebes, or of Athens, we can trace his course in each instance without having to raise our pencil from the plan of the city, for the so-called Enneakrounos episode in the case of Athens is no exception, if we follow Dr. Dörpfeld's views on the question (*Mythol. and Monum. of Athens*, by Jane Harrison, p. 89). Admitting and recognizing then a sense of system in our guide, which topographers seem generally to deny him, let us first consider how he entered Sparta. The modern

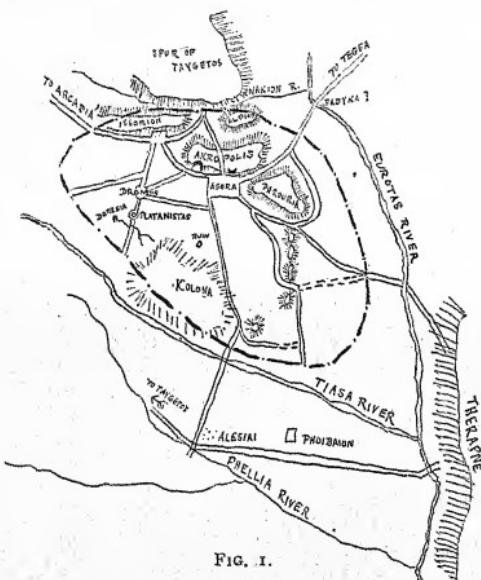


FIG. I.

traveler arriving from Tripolitza and Tegea crosses the Eurotas not far south of the scanty remains of an old bridge over which without doubt Pausanias passed before entering the city. No mention does he make, however, of bridge or anything till he reaches the market-place, which first seems to attract his attention. It has been customary to identify this bridge with the Babyka of the ancient Lykurgian oracle.¹

¹ Plut., *Lyk.* vi. 1: ὅρας εἰς ὥρας ἀπελλάσσειν μεταβῆται Βαβίκας τε καὶ Κνακιώνος; comp. Plutarch's statement: τὴν δὲ Βαβίκαν καὶ τὸν Κνακιῶνα τὸν Οἰνούντα προσαγορεύουσιν. Αριστοτέλης τὸν μὲν Κνακιώνα ποταμόν, τὴν δὲ Βαβίκαν γέφυραν, and Curtius' remarks, *Pelopon.* vol. ii. pp. 287, 812.

Until we know to which stream the Knakion refers, it is but useless guess-work to attempt to locate the bridge Babyka. If the Knakion can be proved to be the stream to the north of Sparta's most northern hill (as I believe it was), then Babyka would with far more likelihood be some bridge to the south of the city, either over the Eurotas or the Tiasa (the modern Magula), since the phrase "between Babyka and Knakion" probably refers to the entire region of the Spartan city rather than the mere spot of assembly. If, however, Plutarch's passage be not corrupt, and his *Oinous* be the same with the *Oinous* in Athenaios (i. 31, *near Pitane*), then the usually accepted site of Babyka may be the correct one, and Oinous may have been the name given to the northeast quarter of Sparta, lying, so to speak, between the bridge and the torrent Knakion. The street by which Pausanias entered Sparta and reached the Agora lay undoubtedly between the hills marked as Akropolis and Phruria on the accompanying plan. The present path which follows the same direction ascends a low ridge joining these two hills and then descends to the level olive grove on the old Agora site. Somewhere between the river and this ridge the city wall must have passed. This wall, which Pausanias speaks of on several occasions, was probably the one built by order of Appius, the Roman legate, in the second century before Christ.² The wall of Nabis had been demolished by the Achæan League, upon the death of that tyrant.³ The first wall ever raised about Sparta appears to have been that spoken of by Pausanias as hastily thrown up on the occasion of Demetrias' advance upon the city (*Ach.* viii. 3). To-day there is no portion of any wall remaining, and the only information we have regarding its length and direction is gathered from Polybius, who tells us (921) that the city was forty-eight stades in circumference and (E 22) that its shape was somewhat circular. Pausanias takes no notice of the wall as he passes through it, nor does he describe any object along his road. But it is not his habit to pass by anything of archaeological interest, leaving it for after consideration; so we may rest assured that he saw nothing worth noting along this avenue, nor can we with Nestorides

² PAUS., *Ach.* ix. 4 : ἐπεκάσθη δὲ καὶ ἐξ ἀρχῆς αὐθεὶς Σπαρτίταις ὁ κύκλος τοῦ ἡρεως.

³ PAUS., *Ach.* viii. 3 : cf. LIV. i. 34. c. 27; i. 35. c. 30.

reasonably suppose that, after his description of the Agora and an avenue leading south, he returns to this northern road and enumerates its buildings. It is true that a few ancient slabs and column drums may be seen projecting from the soil near the summit of the ridge, but it is not necessary to suppose these remains to be *in situ*, nor need they have formed part of any important or conspicuous edifice. However, I will present still stronger arguments against this being the site of the Skias street, when the description of that street is reached.

PAUS. 3. xi, 2 to 11. *The Agora.*—“The Lakedaimonians who occupy Sparta have an Agora well worth seeing, and on the Agora are the¹ Bouleuterion of the Gerousia and² the offices of the Ephors,³ Nomophylakes, and the so-called⁴ Bidiaiai. . . . The most conspicuous building on the Agora is the one they call the⁵ Stoa Persiké, built from the spoils taken from the Medes. In the course of time they have transformed it into its present size and have richly embellished it. Over the columns stand various Persians in white marble, among them Mardonios, son of Gobryas. Artemisia, daughter of Lygdamis and queen of Halikarnassos, is also represented. . . . There are temples also on the Agora; one, a⁶ temple of Cassar. . . . There is also a⁷ temple to his son Augustus. . . . Near the⁸ altar of Augustus they show a⁹ bronze statue of Agias. . . . On the Agora of the Spartans there are also statues of¹⁰ Apollo Pythios,¹¹ Artemis, and¹² Leto, and all this region is called the Choros, because in the gymnopædia (a feast to which the Lakedaimonians devote more attention than to any other) the ephæbi join here in choral dances before Apollo. Not far from these statues there is a¹³ hieron of Gè and others of¹⁴ Zeus Agoraios,¹⁵ Athena Agorai,¹⁶ Poseidon surnamed Asphalios, and also of¹⁷ Apollo and¹⁸ Hera. A¹⁹ huge statue of the Spartan Démos has likewise been set up. The Lakedaimonians also have a²⁰ hieron of the Moirai, and near it is the²¹ tomb of Orestes, the son of Agamemnon, since in obedience to an oracle they conveyed the bones of Orestes from Tegea and buried them here. Passing the tomb of Orestes one sees a²² statue of Polydoros, son of Alkamenes, which king they have exalted to such honor that their public officers stamp with the likeness of Polydoros whatever documents require stamping. There is also a²³ Hermes Agoraios carrying Dionysos as a child, and the so-called²⁴ archaic Ephoreia in which are the tombs of Epimenides the Cretan, and Aphareus son of Perieres. . . . “The Lakedaimonians also possess a²⁵ Zeus Xenios and an²⁶ Athena Xenia.”

Almost the exact position of the Spartan Agora can be determined. That it was on level ground, of rectangular shape and large size, scarcely can be questioned. The rough hill-summit of irregular outline which Leake proposes as the site is wholly unsuitable in every particular, nor can we believe with Stein that even a portion of the Agora extended over hilly and uneven soil. Pausanias' expression “*α<i>εις θέας*” evidently referred to its size no less than its adornment. We

have still better evidence of its spaciousness. In Xenophon's entertaining account of the conspiracy of Kinadon in the first year of Agesilaos' reign, the informer tells the ephors that Kinadon had taken him to the Agora and had bidden him count those who were of pure Spartan blood: *καὶ ἐγὼ, ἔφη, ἀριθμήσας βασιλέα τε καὶ ἑφόρους καὶ γέροντας καὶ ἄλλους αἵ τε τετταράκοντα ἥρόμην, Τί διγ με τούτους, ἢ Κινάδων, εὐέλευσας ἀριθμῆσαι; ὁ δέ εἶπε, Τούτους, ἔφη, νόμιμες σοι πολεμίους εἶναι, τοὺς δὲ ἄλλους πάντας συμμάχους πλέον ἢ τετταρακοσχιλίους ὄντας τοὺς ἐν τῇ ἀγορᾷ.* Our principal help, however, toward the identification of the site is afforded by Pausanias' remark that the street to the west from the Agora presently passed the theatre. I have little doubt then that

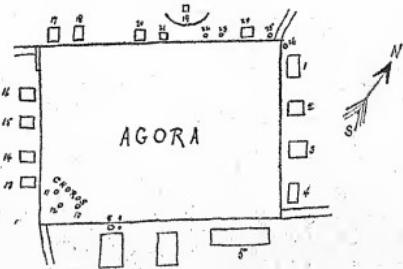


FIG. 2.

the northern side of the square lay close to the hill marked Akropolis on the plan, and that it extended from a point not far east of the theatre to the spot where the road already mentioned from the north reached the level after crossing the ridge. The configuration of the soil has doubtless changed somewhat since the time of Pausanias, and it seems most probable that the recently discovered circular foundation was closer to the level Agora on this northern side. The identification of this ruin with the circular building attributed to Epimenides I consider a great mistake, and how Nestorides should have selected that exact spot for the site, even before excavations were begun, is to me inexplicable. The position of this ruin is such that the edifice which it represents could only have been described as being either on the market-place or on the path up to the Akropolis. The site that Nestorides

assigns to the temple of Korê Soteira would also have been on the ascent to the Akropolis and at a considerable distance from his street of the Skias. But Pausanias does not speak of these buildings as being on a different street, nor does he make the ascent of the Akropolis until he has described all other parts of the city. Moreover, had he made this détour, he would have done so before reaching the Skias, if the ancient roads and modern mule-paths followed the same direction, as is likely. In addition to these objections, other reasons will be given later for disbelieving the theory that the Skias street ran to the north, in which case Epimenides' building could never have been in this region at all. What edifice, then, does this ruin represent? Among the objects noticed by Pausanias as facing the Agora is included a colossal statue (*μέγας αρδπιάς*) of Dêmos. Now, on the summit of this large "circular foundation," the base of a statue was discovered, and among the ruins was found the thumb of what Dr. Waldstein calls "some colossal image." He concludes that both base and thumb belong to one of the two statues mentioned by Pausanias as being in the building of Epimenides. But neither the Olympian Aphrodite nor the Zeus is spoken of as colossal in size, and Pausanias never fails to tell us when he sees a statue extraordinarily large. But why, it may be urged, should Dêmos have been erected on a huge stone circular platform nearly one hundred feet in diameter! I admit this cannot easily be explained, if, as Waldstein supposes, this platform was actually of that size and shape. From my own observation, however, I should rather regard the diameter as nearer fifty than one hundred feet, and I believe, moreover, that further excavation will reveal the fact that this was not a round platform, but a sort of semicircular retaining-wall, erected with the object of giving the huge image a secure and elevated position close to the Agora and overlooking it. As to the arrangement of the various edifices on the Agora, taking for granted that Pausanias enumerated them in consecutive order, I believe that he commenced his description with the building on his left as he entered the Agora, since the statue of Dêmos is near the end of his list. We are told farther on that the office of the Bidiaioi was situated where the avenue called Apheta left the Agora. This avenue ran

eastward, as I shall soon attempt to show. The Bidiaion was therefore on the east side of the Agora, most probably in the southeast corner, the government buildings occupying the entire east face. Nestorides argues that the so-called "Choros" must have been in the northwest corner of the Agora, inasmuch as the dethroned Demaratos is represented by Herodotos (vi. 67) as witnessing the gymnopaedia from a position in the theatre. It is ridiculous, however, to suppose that the theatre would have been chosen as the place from which to view events occurring in the Agora. Nor need we understand from Pausanias' words that all the festivities in connection with the gymnopaedia took place in the Agora. Indeed, we are distinctly informed otherwise by other authors.⁴

There can be no objection then to locating the "Choros," as I have done, in the southwest corner near where the avenue of the Skias leaves the square. On reaching the north side, Pausanias seems to have had his attention attracted to the Dēmos statue before he actually reached it, the only apparent departure from his custom of noticing everything in proper order. There is scarcely space to the east of it for the three buildings that are afterward described. The position of the statue of Zeus Xenios and Athena Xenia, just where strangers from Arkadia would enter the Agora from the north, I might offer as additional evidence in favor of my arrangement. It is certainly as strong an argument as that of Stein and Nestorides, who claim that the Skias street must have led to the north, seeing that Dionysos came from the north and there was a "temenos" to his guide on that street! There is no reason to suppose with Stein and Nestorides that the older Agora lay on the street of the Skias and that at some later period (*i. e.*, after the second Messenian War) this larger Agora of Pausanias superseded it. Pausanias merely mentions a square on that street where in ancient times small ware (*ό βάπτος*) used to be sold. There might easily have been some such place in addition to the larger Agora; *βάπτος* cannot

⁴ Cf. ATHEN. xiv. 631: *οἱ παλαιοὶ γυμναζόμενοι πράγον ἐν τῇ γυμνοπαιίᾳ εἰς τὴν πυρ-ρίχην ἔχαρον πρὸ τῶν εἰσικανοῖς τῷ θέατρῳ*; PLUT., *Ages.* 29: *γυμνοπαιίαι γὰρ ἦσαν ἀγωνίζομένων χορῶν ἐν τῷ θέατρῳ*; but in HESYCH. s. v. *γυμνοπαιία*; *ἐν γὰρ ἀγορᾷ ἔργαζονται*.

possibly refer to all that is sold in the public market. We must remember also that on the Agora of Pausanias stood the Stoa Persikē, the Tomb of Orestes, the archaic Ephoreion, and other buildings which must have dated from the earliest times, for Plutarch's statement that the great earthquake of 464 b. c. left only five buildings standing can scarcely imply the total destruction of the rest.⁵ The classical scholar cannot but feel intense interest in the investigations which may soon be made on this most important of all Spartan sites.

Among the olive-trees which to-day cover the ancient site occasional column drums and hewn blocks of stone may be seen here and there projecting from the soil. Such few excavations, however, as have lately been made on the spot have resulted only in disappointment, owing to the discovery that these scanty remains are not *in situ*.⁶ It is to be hoped that continued search will lead to better results, for it hardly seems possible that all traces could have been obliterated of those buildings which aroused a modicum of enthusiasm even in the apathetic breast of Pausanias.

PAUS. 3. xii. 1 to 8. *The Apheta*: "As you go from the Agora by the road they name Apheta, there is the so-called¹ Βοῶντα; but my narrative compels me first to explain the name given to the road. They say that Ikarios proclaimed a foot-race between the suitors of Penelope. It is well known that Odysseus won. They also say that the runners were started (*ἀφεθῆναι*) on a course leading through the street Apheta. On this road, as I have just said, the Lakedaimonians possess the so-called¹ Βοῶντα, formerly the house of King Polydoros. When he died, however, they bought it from his widow, paying for it in oxen, since coined silver or gold was not in use then, but still in archaic fashion they paid for articles in oxen, slaves, and uncoined silver and gold. . . . And beyond the Bidionion is a² hieron of Athens; and Odysseus is said to have set up the statue and to have named it Keleutheia, having conquered the suitors of Penelope in the race. And he built hiera of Keleutheia, three in number and separate from each other. Advancing along the Apheta there are heroa of³ Iops, who seems to have lived in the time of Lelex or Myles, and of⁴ Amphiaroas, son of Oikles. They believe that the sons of Tyndareus built this in honor of Amphiaroas, seeing that he was their cousin. And there is also a⁵ heroön of Lelex himself. And not far from these is a⁶ temenos of Poseidon Tainarios. And not a long distance off is a⁷ statue of Athena, which they say the colonists to Italy and Tarentum set up. And the place which they call the⁸ Hellenion was so named because those Hellenes, who were preparing to defend themselves against Xerxes as he was about to cross over into Europe, took counsel in this place as to the manner in which they should

⁵ PLUT., *Kim.* xvi. 4: αὐτῇ δὲ πόλις ὅλη συνεκίνθη πλὴν οἰκιῶν πέντε, τὰς δὲ λλας ἥρετεν δὲ σεισμός.

⁶ WALDSTEIN'S Report to the Archaeological Institute.

resist him. But another story says that those who took part in the expedition against Ilium as a favor to Menelaos consulted there how they would be able to set sail for Troy and punish Alexander for the rape of Helen. And near the Hellennion they show a⁹ tomb of Talthybios. . . And the Lakedaimonians have an¹⁰ altar to Apollo Akritis. And there is a¹¹ heron of Gē called Gasēpton, and beyond it a¹² statue of Apollo Maleates is set up. And at the extreme end of the Aphetais and nearest the wall is a¹³ heron of Diktynna and the¹⁴ royal tombs of the so-called EuryPontidai."

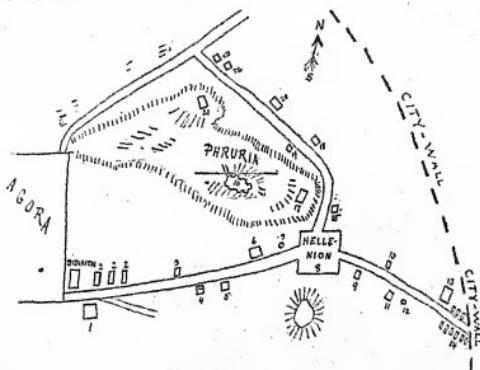


FIG. 3.

Three avenues are mentioned by Pausanias as leading from the Agora, but he tells us the direction of only one, *i. e.*, that which led to the west. Pausanias himself must have arrived by a street from the north; we have therefore the east and south sides of the Agora remaining, in which we may suppose the two other avenues opened. All topographers have agreed in placing the Apheta to the south, but nowhere can I find any convincing reason given for so doing. It was the avenue along which, as the legend went, the race between Penelope's suitors was run. It must therefore have been a tolerably level road. But the region to the east of the Agora is no less level than that to the south, and a traveler arriving from the north would certainly be more likely to describe the avenues in the order of east-south-west, than of south-east-west or south-north-west as Nestorides supposes. There is good reason, then, to start with the assumption that such was Pausanias' natural method, and to place the Apheta to the east rather than the south. It is true that no hill is spoken

of as being passed by in following this avenue, but we will come to find that Pausanias by no means notes every hill on his route through the city. It is also very possible that the *φρούρια* were situated on high ground, just such an eminence as is furnished by the large hill a little north of east from the Agora, by which this avenue to the east must have led. On this conspicuous hill Nestorides places no edifice whatever! But perhaps our strongest argument may be derived from a passage in Livy (l. xxxiv. c. 38). We are told by him that, when Quintius marched against Sparta and the tyrant Nabis, the city was walled, excepting in those places where the ground was naturally high : *tyranni nuper locis patentibus planisque objecerant murum, altiora loca et difficilia aditu stationibus armatorum pro munimento objectis tutabantur*. He afterward narrates that the Roman army was divided into three separate bands for attacking the city : *parte una a Phæbæo, altera a Dictynneo, tertia ab eo loco quem Heptagonias appellant—omnia autem hæc aperta sine muro loca sunt—adgredi jubet*. From this description we cannot derive much satisfactory information, but we may gather that the sites mentioned were opposite the more elevated parts (*altiora loca*) of the city, since those were the only parts unwalled. This being the case, the position I have assigned to the Diktynnion on the east is certainly preferable to the site heretofore adopted on the south, where we may safely presume the wall to have been raised. The mention of Heptagoniae gives us no help, as the spot is nowhere else spoken of. It was probably still further to the north, for to identify it with the modern village of Kalogonia, close to the Magula and the probable site of the Phoibaion, is out of the question. Nestorides evidently does not consider the fact that a division of the army, approaching the city from the site of Kalogonia, could not possibly be spoken of as distinct from that advancing from the Phoibaion, whether the Phoibaion be placed to the north of the Magula (according to Nestorides) or south of it (as in my plan). Moreover, Livy would probably have named the three starting points in their proper order, which would require the Diktynnion to be placed somewhere between the Phoibaion and Heptagoniae. I have placed a gate in the city wall at the end of the Apheta and con-

sider it likely that the road leading to Therapne, followed later by Pausanias, was a continuation of this street, and that there was consequently a second bridge or at least a ford over the Eurotas opposite this gate. This may have been one of the two gates referred to in Livy (l. xxxv. c. 30) through which roads led to Pharai and Mount Barbosthenes: *Quarum portarum itineribus, quæ Pharas quaque Barbosthenem ferunt, eos instruxit, qua ex fuga recepturos sese hostes credebat.* These gates would both naturally lie to the north or east of the city as the army of Nabis was encamped to the northeast (l. xxxv. c. 27). The only Lakonian Pharai, however, that we know of was south of Sparta (Paus. iii. 20, 3; cf. iv. 16, 8).

PAUS. 3. xii, 8 and 9. *Road from the Apheta [see Fig. 3]:* "Near by the Hellenion there is a¹⁵ heron of Arsinoe, the daughter of Lenkippos and sister of the wives of Polydeukes and Kastor. And near the so-called¹⁶ Phruria there is a¹⁷ temple of Artémis. Proceeding on a little there is a¹⁸ tomb to the soothsayers from Elis, the so-called Iamidai. And there is also a¹⁹ heron of Maron and Alpheios. These seem to have fought in the most noteworthy manner, next to Leonidas himself, of all the Lakedaimonians who marched to Thermopylai. And the Dorians built the²⁰ heron of Zeus Tropaios, after having defeated in war the Amyklaians and other Achaians who then possessed the Lakonian territory. And the²¹ heron of the Great Mother is held in exceeding honor. After it are the herōn²² Hippolytos, son of Theseus, and of²³ Aulon, the Arkadian, son of Tlesimenes. Some say that Tlesimenes was the brother of Parthenopaios, son of Melanion, while others call him his son."

After Pausanias had followed the Apheta to the Diktyneion and the city wall, he appears to have retraced his steps to the Hellenion and from there to have advanced along another street. The usual explanation given is that after noting the buildings on one side of the Apheta, from the Hellenion to the Royal Tombs, he returned to the square and went over the same course again, enumerating the objects on the other side, a method of sight-seeing which I claim Pausanias could never have been guilty of adopting. He usually tells us when he has entered a new street, but his language here seems sufficiently clear without any such special announcement. The Phruria, as before remarked, I take to have been on the hill to the southeast of the Akropolis, a hill but little inferior to the Akropolis itself in extent and elevation, and which would naturally have served as a stronghold. It may be that the δεσμωτήριον in which Agis was murdered, (cf.

Plut., *Agis* xix) was the same with Pausanias' *φρούρια*. The description of the capture of Agis on his way from his bath (*i. e.*, in the Eurotas?) to the temple of Chalkioikos on the Akropolis seems to favor the supposition, for the King is dragged up a street that branches off from the main street, just as the avenue we are following forms a branch of the road to the north. It is possible that this street may have led from the Hellenion over the very crest of the Phruria hill, and that all the buildings mentioned may have stood on that height. I have preferred, however, to regard the road as running along the base of the hill, though I think it likely that several of the temples may have been above the road on the height. I have accordingly placed in that position the temple of Artemis (as being near the Phruria) and also the hieron of the *Μεγάλη Μήτηρ*, on a conspicuous knoll projecting from the main hill toward the north. It is this site that Nestorides has chosen for the Kolona, at the base of which he locates the temple of Dionysos Kolonatos! The position of the hieron of Zeus Tropaios to the east of the city, might be objected to on the ground that the Amyklaians would have been more likely to attack the city from the south. The same argument might be urged against the location of the Diktyonnaion as we have given it, from which point Quintcius assaulted the city, though having advanced from the south. But such objections are weak. In the case of Quintcius, the east was evidently the most vulnerable point of attack; at the early period of the Amyklaian war, Sparta may have been smaller in size and restricted to the region immediately surrounding the northernmost hills. The Tiasa (mod. Magula), flowing to the south of the city, would also have proved a great obstacle in an assault from that quarter. After passing the herōa of Hippolytos and Aulon, we may believe that Pausanias returned to his central point, the Agora, along the same road by which he had arrived from the north. This supposition would then explain the fact that he leaves the avenue, that branches off from the Apheta near the Boônetia, to be described much farther on in his account of the city, a thing he would scarcely have done had he returned to the Agora by the Apheta.

PAUS. 3. xii. 10 and xiii. *Street of the Skias*: "There is another road out of the Agora, on which there is erected the so-called ¹Skins, where they still hold their assemblies to this day. They say that the Skias is the work of Theodoros, the Samian, who first invented the melting of iron and first made statues of it. There the Lakedaimonians hung the lyre of Timotheos the Milesian, blaming him for having invented four new strings for the lyre in addition to the seven ancient strings. Near the Skias there is a ²circular building, in which there are statues of Zeus and Aphrodite, both surnamed Olympian. This building they say was erected by Epimenes, but they do not agree with the Argives in their account of him, for they deny that they made war against the Knossians. Nearby, there is a ³tomb of Kynortas, son of Amyklas, and a tomb of Castor, over which a hieron has also been built. For in the fortieth year after the battle with Idas and Lynkeus, and not before, they say that the sons of Tyndareus were regarded as gods. And near the Skias is shown a ⁴tomb of Idas and Lynkeus. Opposite the Olympian Aphrodite the Lakedaimonians have a ⁵temple of Kore

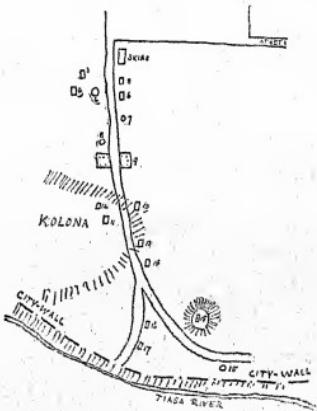


FIG. 4.

Soteira, and they say that the Thracian Orpheus built it, though others say it was Abaris on his visit from the Hyperboreans. The ⁶Karneios, surnamed Oiketas, used to be honored in Sparta even before the return of the Herakleidai, and was set up in the house of Krios, son of Theokles, a seer. And, while the daughter of this Krios was drawing water, certain spies of the Dorians meeting her entered into conversation with her, and having come to Krios they learned from them how to capture Sparta. And not far from the Karneios is the so-called ⁷statue of Aphatalos. They say it was from this point that the race between Penelope's suitors began. And there is a ⁸place adorned with stoa arranged in the form of a square, where small ware used to be sold in ancient times. Near this, there is an ⁹altar of Zeus Amboulios, of Athena Amboulia, and of the Dioskouri Amboulii. Opposite is the so-called Kolona and temple of ¹⁰Dionysos Kolonatas. Near this is a ¹¹temenos of a hero, who as they say acted

as guide to Dionysos in his journey to Sparta. And the Dionysiades and Leukippides sacrifice to this hero before sacrificing to the god. And they have instituted a foot-race between eleven other girls whom they also call Dionysiades. This an oracle from Delphi instructed them to do. Not far from the Dionybos is a ¹³hieron of Zeus Euanemos. On the right of this is a ¹⁴hieron of Pleuron. From this Pleuron the sons of Tyndareus were descended on their mother's side. There is a hill not far from the heroön, and on the hill a ¹⁵temple of Hera Argeia. They say that it was built by Eurydike, daughter of Lakedaemon and wife of Akrisios son of Abas. The ¹⁶hieron of Hera Hypercheiria was built by order of an oracle, at a time when the Eurotas was overflowing a large part of the land. And there is an ¹⁷archaic xoanon which they call Aphrodite Hera, and it is customary for the mothers to sacrifice to this goddess on the marriage of a daughter. On the road to the right of the hill is a ¹⁸statue of Hetoimokles."

If we have rightly located the Apheta it necessarily follows that the street passing the Skias left the Agora from its southern side. Pausanias mentions a hill, apparently toward the end of the avenue, on which stood a temple of Hera Argeia. This can easily be identified with a conical hill in the southern part of the modern town, directly through which a carriage-road has been cut. It has generally been taken for granted that the Kolona must also be a detached hill of similar sort, but the very fact that it received the special name of *Kolōwn* rather indicates an eminence differing from the ordinary type of Spartan hills. At any rate, a part of the ridge or bluff which to-day traverses the modern city could well have been called by that name, just as at Athens the *Kolōwnōs ἄγοραῖς*, on which the so-called Theseion is situated, is, and perhaps was, a mere projection of higher ground and not a distinctly defined hill.

On a neighboring site, upon the same bluff perhaps, stood the hieron of Zeus Euanemos, this surname having been given to Zeus as director of the warm and pleasing breezes from the south; nor could a more suitable spot have been selected for the abode of this beneficent deity than this southern eminence, where such breezes would be especially enjoyed. The road referred to as passing to the right of the Hera Argeia hill must have run pretty close to the wall of the city, which was probably set up along the northern bank of the Tiasa river, the stream conveniently serving as a moat. The street of the Skias has usually been regarded as running to the southeast from the Agora, seemingly for no other reason than because there are several small

hills in the quarter, two of which might be made to correspond with the Kolona and Hera Argeia hill of Pausanias. We have shown that these latter may equally well be identified with eminences to the south, and we have already called special attention to the fact that any sound-minded topographer would have followed the various streets in their regular order. Now, if the Apheta be placed to the south and the Skias street to the southeast, as Leake and several others have done, the order would be most irregular and unnatural. If, again, the Apheta be put on the east and the Skias street to the southeast, then no road to the south or southwest would have been spoken of, an extremely unlikely supposition. Moreover, we will afterward find that the small hills to the southeast can be more satisfactorily identified on the line of another street described later.

Nestorides, following Stein, places the Skias street to the north. His arguments, however, have little weight. He asserts in the first place that the race of Penelope's suitors must have been a chariot-race, and, as the starting point was on the Skias street and the race extended along the Apheta, these two streets must have been on a straight line. He accordingly puts the starting-place on a ridge to the north of the Agora, and supposes that his chariot-race was begun down-hill! But why, I ask, need we believe that the race was a chariot-race? And why may not the course have been a rounded one? Level ground was the only desideratum, and that is not obtained by the topographical arrangement of Professor Nestorides. His other arguments, that the house of Krios must have been in the northern quarter of the city because the Dorians came from the north, and that the temenos of Dionyso's guide must have been there too for the same reason, seem to me to be unconvincing. Pausanias by no means tells us that the Karneios Oiketas was in the house of Krios in his own time, and from the language that he uses it seems to me most probable that the "Karneios," was a statue in the open air. On another page (p. 48) Nestorides, inconsistently with his argument as to the "house of Krios," assumes that there was a temple (*ταύός*), but it seems unlikely that there should have been two temples to Apollo Karneios in the same city, notwithstanding Pausanias' account of the double origin of

the surname. As for the temenos of Dionysos' guide, why should it be placed only at the point where he entered the city, and not elsewhere? My objections to the position which Nestorides has assigned to the temple of Korê Soteira and Epimenides' building have been already brought forward.

But the weakness of his topography is still more strikingly displayed when he attempts to locate the Kolona and its Dionysos temple. That this temple was the same as that called *τὸ τοῦ Διονύσου ἱερὸν ἐν Λίμναις* by Strabo (c. 363) seems very likely, nor does Nestorides seem to entertain a doubt of their identity. He chooses, however, a site for the temple at nearly the opposite end of the city from where he places the Limnai and the Limnaion (or hieron of Artemis Orthia). That the Limnai was the flat region to the south and southeast of the city, I agree with the professor in believing, but the Dionysos *ἐν Λίμναις* should certainly lie also somewhere in that quarter of the town. He selects, however, a steep northern spur of our "Phrouria hill" for his Kolona, and then, puzzled by Strabo's remarks, (*τὸ τοῦ Διονύσου ἱερὸν ἐν Λίμναις ἐφ' ὑγροῦ βεβηρώς ἐτύγχανε, νῦν δὲ ἐπὶ ξηροῦ τὴν οἰδρυσιν ἔχει* [ed. Meineke], or, as in older editions, *ἐν λίμναις καὶ ἐφ' ὑγροῦ*), he puts the temple at the foot of it! Strabo, or his informers, however, were probably misled by the expression *ὅτι ἐν Λίμναις* applied to this Dionysos (as also at Athens) and supposed that the temple had originally been built on marshy soil. The mistake might more readily have been made were the Kolona situated where I have put it; but, if the temple were on the eminence that Nestorides calls the Kolona, no such absurd legend would ever have been believed by anybody. To place the temple at the bottom of the hill is to escape one absurdity by running into another. Why would the surname Kolonatas have been given to the god, if his temple did not rest upon the Kolona? Or why, it might again be asked, was the temple not set on the hill rather than in the marshes at its foot? His Hera Argeia hill, moreover, is a mere spur of the Akropolis, and not a distinct height such as Pausanias' term *λόφος* would certainly suggest. Its summit, again, is much too narrow to have served as a temple site, and could only have been approached from the Akropolis side, the other sides being too precipitous for

any path. The interesting ruin, which to-day falsely bears the name of the "Tomb of Leonidas," has been recently excavated and examined by the American School at Athens. Dr. Waldstein feels justified in boldly asserting that it is no tomb or cenotaph at all, but a small "templum in antis" (*Rep. to Archæol. Instit.*, 1892). He furnishes us, as yet, with no details to prove his declaration, and for my own part I have discovered nothing which disposes me to disbelieve that this small building of massive stone blocks once contained the body of some ancient Spartan. Perhaps Dr. Waldstein's theory, and the usually accepted one that it is a tomb, may both be correct. Near the circular building of Epimenides, according to Pausanias, were the tombs of Kynortas and Kastor. Over the latter's tomb (for so I translate $\dot{\epsilon}\pi\iota\delta\alpha\tau\phi$) was afterward built a hieron. May not this temple-tomb of Kastor be identified with this ruin which, with the sole exception of the theatre, has alone been left these many years above the soil—the single architectural relic of the ancient glory of Sparta! It is true that the site of the ruin is a little to the west of the Skias street, if that street ran from the southwest corner of the Agora in a direct line to the conical hill mentioned above. But Pausanias' description seems to imply that the tombs of Kynortas and Kastor were a little removed from the main avenue. Notice the order in which he enumerates the buildings: the Skias—near the Skias the circular building of Epimenides—near this the tombs of Kynortas and Kastor—near the Skias the tomb of Idas and Lynkeus—opposite the circular building, a temple of Koré Soteira. It seems evident to me that the two tombs were not on the avenue, for, had they been on the Agora side of the circular building, Pausanias would have been retracing his steps; and, had they been beyond the same building farther along the avenue, then Pausanias would have returned some distance to the Skias again, a method of sight-seeing which we have already remarked Pausanias could not have adopted. Respecting the numerous tombs in Sparta, a very interesting passage in Plutarch's "Life of Lykourgos" may be appropriately quoted here in full: *Καὶ μήν καὶ τὰ περὶ τὰς ταφὰς ἄριστα διεκόπησεν αὐτοῖς. πρῶτον μὲν γὰρ ἀνέλαν δεισιδαιμονίαν απασάν ἐν τῇ πόλει*

Σάπτειν τοὺς νεκροὺς καὶ πλησίον ἔχειν τὰ μνήματα τῶν ιερᾶν οὐκ ἐκόλυσε, συντρόφους ποιῶν ταῖς τοιαύταις ὄψεσι καὶ συνήδεις τοὺς νέους, ἀστε μὴ ταράττεσθαι μηδ' ὀρρωδεῖν τὸν θάνατον ἐς μιαίνοντα τοὺς ἀφαμένους νεκροῦ σάματος ἢ διὰ τάφων διελθόντας· ἔπειτα συνθάπτειν οὐδὲν εἴασεν, ἀλλ ἐν φουνικίδι οὐτοὶ φύλλοις ἐλαίας θάντες τὸ σῶμα περιέστελλον. ἐπιγράψαι δὲ τοῦνομα θάφαντες οὐν ἐξῆν τοῦ νεκροῦ, πλὴν ἀνδρὸς ἐν πολέμῳ καὶ γυναικὸς ταῦν ιερᾶν ἀποθανόντων.

PAUS. 3. xiv. 1 to 5. *Road to the West from Agora:* "As one goes from the Agora to the setting sun, there is a ¹cenotaph erected to Brasidas, son of Tellis. Not far distant from this tomb is the ²theatre of white marble, well worth seeing. Opposite the theatre is the ³tomb of Pausanias, who commanded at Plataia, the one

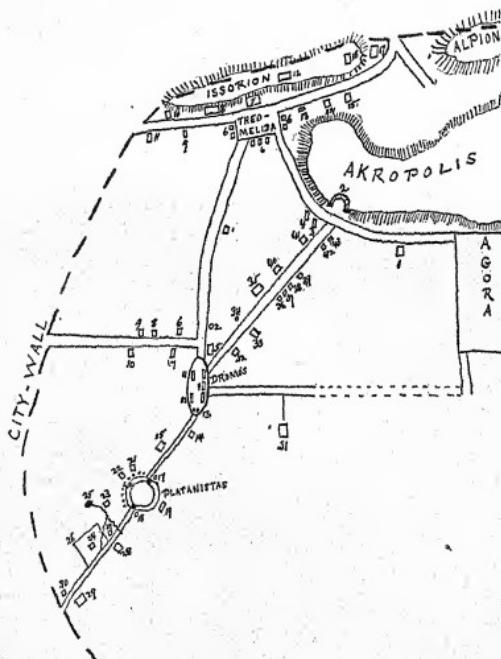


FIG. 5.

beside it being a ⁴tomb of Leonidas. Speeches are made every year over them, and games are held, in which none other than the Spartans is allowed to compete. The bones of Leonidas were not removed from Thermopylai by Pausanias until

forty years after the battle, and there is a stèle containing the names and paternal descent of those who took part in the struggle against the Medes at Thermopylai. In Sparta there is a place called ⁶Theomelida, and in this part of the city are the ⁶tombs of the kings called Agiadai. Near by is the so-called ⁷Lesché of the Krotani. These Krotani are a division of Pitaneatai. Not far from the Lesché is a ⁸hieron of Asklepios, spoken of as the one ἐν Ἀγυρδῷ. A little way on is a ⁹tomb of Tainaros, after which hero they say that the promontory extending into the sea was named. There are also hiera of ¹⁰Poseidon Hippokourios and ¹¹Artemis Aiginia. After having come back again to the Lesché there is a ¹²hieron of Artemis Issora. They also gave her the surname Limnia. This goddess is really not Artemis but Britomartis. My account of Aigina tells about her. Very near the tombs of the Agiadai you will see a ¹³stèle, and on it are inscribed the victories in foot-races won by a Lakedaimonian, named Chionis, at Olympia and elsewhere. They relate that the ¹⁴hieron of Thetis was built for the following reason : They were warring against the revolting Messenians, and their king, Anaxandros, having made an incursion into Messenia, took several women captive, among whom was Kleio, a priestess of Thetis. This woman the wife of Anaxandros begged from him, and discovered the xoanon of Thetis in her possession. In concert with her, then, she erected a temple to the goddess. Leandris did this, it is said, in obedience to a vision. This xoanon of Thetis they guard most secretly. The Lakedaimonians say that they worship ¹⁵Demeter Chthonia by direction of Orpheus, but in my opinion it is on account of the hieron in Hermion that it has become custom for them also to pay honor to Chthonian Demeter. Their latest temple is one to ¹⁶Sarapis, and there is a ¹⁷hieron of Zeus, surnamed Olympios."

It is difficult for even time to obliterate all traces of an ancient Greek theatre. Built, as most of them were, into the side of a hill, the semicircular hollow of the Spartan theatre may still be seen, though marble seats and stone façade have all been removed by the hands of native vandals. The cavea is to-day all overgrown with weeds and thorns, nor has even excavation discovered any sign of the λευκὸς λιθὸς admired by Pausanias. Portions of the extremities of the encircling wall still exist, but the greater part seems of very late construction, even subsequent to the time of Pausanias. Yet we are fortunate in even possessing a knowledge of the site, for not only is the spot itself associated with several interesting incidents in Spartan history (Plut., *Ages.* xxix. 2 ; Hdt. vi. 67), but it serves as a most useful landmark in our topographical restoration of the city. This road to the west evidently passed close to the theatre, between it and the tombs of Pausanias and Leonidas. There is good reason to hope then that, if anything still remains of these tombs beneath the soil, excavation will soon reveal the true

resting-place of the hero of Thermopylai, whose name has so long been wrongly connected with the ruin much further to the south. After noticing the theatre, Pausanias remarks in the most abrupt way: "In Sparta there is a place called Theomelida." Former topographers have generally understood that he here goes to a totally different quarter of the city without telling us where, though he invariably informs us of any such change of position. They place the Theomelida and the royal tombs of the Agiadai in the extreme north close to the Eurotas, the Dromos further south, also beside the Eurotas, and the Platanistas near the Phoibaon and the union of the Tiasa with the Eurotas, considering that the entire route described, from the Theomelida to the Platanistas, lay not far from the right bank of the river. Then, when the *Leschê Poikilê* is mentioned soon after as being simply "in Sparta," we must believe that another such leap was taken, and again, when the hieron of Poseidon is spoken of as "not far from the theatre," Pausanias must be supposed to have suddenly skipped back to his early position, without any apparent method or reason. This mode of interpreting Pausanias is, as I have before observed, certainly wrong. We should not be misled by his occasional abruptness of style, which is everywhere noticeable throughout his work, and which was with little doubt often adopted, as here, to lend variety of expression to a long enumeration of objects, which might otherwise grow tiresomely monotonous. On my first visit to Sparta, in the spring of 1887, I came to the firm conclusion that the Dromos must have been in the western part of the city, and that Pausanias' course should be regarded as continuous from the time he leaves the theatre until he again returns to it by another street.

Stein and Nestorides seem independently to have arrived at pretty much the same opinion, though with regard to the site of the Issorion, and in several other minor points, our views do not coincide exactly. The Issorion, on which was the temple of Artemis Issora, was a hill (*λόφος*) near Pitane (*Polyain. 2. i. 14*), and, in Agesilaos' time, well protected and difficult to capture (*ενεργῆ καὶ δυσεύβλαστον*, Plut., *Ages.* xxxii). Yet Pausanias does not speak of the temple as being on any hill, though I think it extremely probable that he

would have mentioned the fact, had the height been so prominent and well-defined as the one generally regarded as the site (*i. e.*, the Alpion, according to my plan). Moreover, on leaving the Akropolis later on, Pausanias goes "toward the Alpion," which naturally must have been the hill *nearest* on the north, and not the spur of Taygetos still farther north, beyond and behind it. If Nestorides were correct in his location of the Issorion, Pausanias would certainly have said "toward the Issorion" and not "toward the Alpion," in going in that direction. But there is still a greater objection to offer. The Theomelida and the temple of Issora or the Issorion were necessarily very near each other, for the Leschê of the Krotani was close to both. Pausanias clearly says: "After having come back to the Leschê there is a hieron of Artemis Issora," though Nestorides seems to think that the expression *ἐπαρελθοῦσι* may be taken in the sense of "coming back to" or "on the way back to," an impossible rendering. Consequently the Theomelida was close to the Issorion. If, then, we choose the northern hill for the Issorion, we must also place the Theomelida there. But to say nothing of the unlikelihood of so long a détour to the north without noticing any buildings on the way, great difficulty is met with in finding sites for the numerous temples in the immediate vicinity. Pausanias evidently follows two avenues from the Leschê, one to the right, the other to the left, then afterward takes the road to the Dromos. But the two narrow ravines on either side of Nestorides' Issorion are wholly unsuitable as sites for these roads, nor could they well have contained the various temples mentioned. Besides this, Pausanias afterward (xviii. 2-5) notices several other temples in this very region, and it is scarcely possible that he would either have gone over the same quarter twice or have seen so many important edifices in this cramped and confined neighborhood. We are told that the Issorion was *near* Pitane (*Polyain. 2. i, 14*), while the Leschê of the Krotani must of necessity have been in Pitane. Between the two, therefore, lay the line dividing two of the four or five Spartan districts or original *μαρτυρία*. The number of the Bidiaioi and Ephors makes it probable that these districts were five in number, but we only know the names of four, *i. e.*, Pitane,

Mesoa, Limnai, and Kynosoura (Paus. 3. xvi. 9, Strab. II-364 and 368). In which of these the Issorion lay we have no means of saying. It was probably that district whose name has been lost to us;⁷ certainly not the Limnai, which could never have extended to either one of the sites proposed for the temple. The second surname of the goddess, *i. e.*, Limnaia, may have belonged to the goddess before her introduction into Sparta, and may be a corruption of *Λιμνεία*.⁸ It cannot at any rate be supposed to refer to the district, as in the case of the Limnaion (or temple of Artemis Orthia) mentioned later.

PAUS. 3. xiv. 6 to xv. 5. *Road from the Tombs of the Agiadai to the Platanistas* (see fig. 5): "The Lakedaimonians call that place the Dromos where even to our day the youths practise running. Going to this Dromos from the tomb of the Agiadai, there lies on the left a ¹tomb of Eumedes, son of Hippokoön. There is also an ²archaic statue of Herakles to which the Sphaireis sacrifice. These are those of the Epheboi who are just about to be enrolled among the men. In the ³Dromos have been built several ⁴gymnasia, one of them the gift of Eurykles the Spartan. Outside of the Dromos, by the statue of Herakles, there is what was in ancient time the ⁵house of Menelaos, but now it belongs to a private individual. Proceeding away from the Dromos there is a ⁶hieron of the Dioskouri, and ⁷another, of the Charites; others also of ⁸Eileithyia, ⁹Apollo Karneios and ¹⁰Artemis Hegemone. On the right of the Dromos there is the ¹¹hieron of Asklepios Agnitas, Agnitas being the surname because the xoanon of the god is of *agnus*-wood. Not far from the Asklepios stands a ¹²"tropaion" said to have been set up by Polydeukes on the occasion of his victory over Lynkeus. Near the beginning of the Dromos are the ¹³Dioskouri Apheterii, and a little beyond is the ¹⁴herōn of Alkon, whom they call the son of Hippokoön. Past the herōn of Alkon is a ¹⁵hieron of Poseidon, surnamed Domatites. And there is a place called ¹⁶Platanistas from the plane-trees that grow around it of large height and in a continuous line. The spot itself where the Epheboi are accustomed to fight is encircled by a canal, like an island in the sea, and one enters on bridges. At one of these bridges there is a ¹⁷statue of Herakles; at the other, an ¹⁸image of Lykourgos. Lykourgos it was, who, besides making other laws for the state, instituted this battle of the Epheboi. The following ceremonies are first performed by the Epheboi. Before the battle they sacrifice in the Phoibaion, a place outside the city, not far from Therapne. There, each of the two divisions of the Epheboi sacrifice a dog's whelp to Enyalios, judging that the bravest of the domestic animals is an appropriate offering to the bravest of the gods. And I know of no other Hellenes who are accustomed to sacrifice the whelps of dogs, excepting the Kolos-

⁷ Dyme, acc. to GILBERT, *Griech. Staats-Ant.* vol. i. p. 43; *Agidai*, acc. to LEAKE, *Pelop.* vol. i. pp. 175 and 178; *Sparta*, acc. to NESTORIDES; *Thornax*, acc. to BERGK, *Phil.* xii. p. 579, No. 28; *Oinous*, as I think; see below.

⁸ PAUS. 2. xxxiv, 11, and compare the surname *Διμενόσκοτες* applied to Artemis in KALLIM. DIAN. l. 259.

phonians. For the Kolophonians sacrifice a black female puppy to Enodios. And both this sacrifice of the Kolophonians and that of the Epheboi in Lakedaimon take place at night. At this sacrifice the Epheboi match trained boars against each other in fight, and it generally happens that those Epheboi conquer in the Platanistas whose boar may chance to have won. Such are the ceremonies in the Phoibaion. But on the following day, a little before noon, they enter the above-mentioned place by the bridges. It has previously been determined by lot during the night by which entrance each division shall enter. They fight with their fists and leap on their adversaries with their heels, biting each other and tearing each other's eyes out. Man fights against man in this way. They also rush together violently in a mass and shove each other into the water. Near the Platanistas is the ¹⁹ herōon of Kyniska, daughter of King Archidamos. She was the first woman to breed horses and the first to win in a chariot-race at Olympia. Behind the ²⁰ stoa that runs along the Platanistas there are the herōa of ²¹ Alkimos and ²² Enaraiphoros, and not far away the ²³ herōon of Dorkeus, and next to it the ²⁴ herōon of Sebros. These all were the sons of Hippokoōn, they say. And they name the fountain near the herōon ²⁵ Dorkeia from Dorkeus, and the ²⁶ place Sebrión from Sebros. On the right of the Sebrión is the ²⁷ tomb of Alkman, the beauty of whose poems is not at all impaired by his Lakonian dialect, though it is the least euphonious of dialects. Near the tomb of Alkman is a ²⁸ hieron of Helen, and very near the wall is a ²⁹ heron of Herakles, containing an armed statue of Herakles. They say that the form of this statue is due to his battle with Hippokoōn and his sons. They assert that Herakles' anger was first aroused against the house of Hippokoōn because they refused to purify him when, after the death of Iphitos, he came to Sparta seeking purification. But the beginning of war actually arose from the following event. Oionos, a lad in years, and a cousin of Herakles, being son of Likymnios, the brother of Alkmēna, came to Sparta with Herakles, and as he was going about viewing the city, when he drew near the house of Hippokoōn the watch-dog rushed out at him. And Oionos happened to pick up a stone and hurl it at the dog, striking it. Then Hippokoōn's sons ran out, and beating Oionos with clubs they killed him. This especially provoked Herakles' anger against Hippokoōn and his sons. And immediately, in his first fit of wrath, he made an attack upon them. He was wounded, however, and just managed to escape safely. But later he marched against Sparta and punished Hippokoōn and his sons for the murder of Oionos. And the ³⁰ tomb of Oionos lies near the Herakleion."

That the site of the Dromos and Platanistas should be looked for in the western part of the city, and not on the flat ground adjacent to the river, seems clearly proved by the following facts: (1) a street is soon mentioned as running to the east from the Dromos, but if the Dromos were on the eastern side of the city it would necessarily be situated close to the eastern wall and no space would be left for such a street; (2) it is evident from Pausanias' language that another street ran from the Dromos to the theatre or to a spot near by, but this street, as is plainly seen, could only have been from the south or

west ; (3) the house of Menelaos seems to have been in the district of Pitane, as we may gather from Hesych., *s. v. Πιτανάτης*, where Menelaos is styled a Pitane; in the same passage the gymnopædia in the theatre are unquestionably referred to as the *ἄγραιν Πιτανάτης*, proving the theatre to have been in Pitane (Leake strangely asserts that "Herodotus shows that the theatre was in the quarter of Pitane," but I find nothing in Hdt. to support him; see *Pelop.* vol. i. p. 176); if then the theatre was in Pitane, it is hardly probable that that district extended along the Eurotas, but we may more reasonably suppose that it spread out (*Pitane* from *πετάννυμι*) over the plain to the south of the theatre; Leake says that "Pindar describes Pitane as being at the ford of the Eurotas," but the passage in Pindar proves nothing whatever as to the proximity of the district to the river; (4) Livy's description of Nabis assembling his troops in the field (*campus*) "which they call Dromos" applies much better to the level region on the western side than to what must have been only a confined strip of ground between the eastern wall and the hills on the east; (5) the fountain Dorkeia is easily recognized in a copious spring in the southwestern quarter of the city. No other spring in the whole region of Sparta compares with it, and it could well have served to supply the canal of the Platanistas with water, as well as the baths of the gymnasium. To-day the neighborhood of the spring is especially fertile and green, the abundant water being used for irrigating purposes; poplars line the banks of the little stream flowing from it, and the whole spot possesses a freshness and natural beauty which we may well imagine the plane-trees may have also given it in ancient times; (6) the site proposed by Leake, and accepted by many modern travellers, would, it seems to me, be outside the city walls, for we cannot suppose that the walls reached down to the very bank of the Eurotas or included the modern stream Magula (anc. Tiasa). W. G. Clark (*Pelop.* p. 167) rejects Leake's opinion, but his own remarks show that common and lamentable failure to recognize any method whatever in Pausanias' circuit of the city. He says: "There is no evidence that the place called Platanistas was where Colonel Leake has placed it, at the junction of the little river Trypiotiko (*i. e.*, Magula) with the Eurotas. It

may have been an island in the Eurotas [!] or even in the bed of the other stream; neither is there any proof that the Dromos was adjacent to or near it. The mention of one place of athletic exercise naturally leads Pausanias to speak of another." The passage in Polybios (e 22) which informs us that the hill Menelaion was only one and a half stades from the city wall by no means implies that the wall extended in a southeast direction almost to where the Tiasa and Eurotas unite. If it had, then would Polybios' statement that the city was of circular shape have been untrue. Moreover, the διαστημα of "three semi-stades" may refer to a point much farther north, since the hills of Therapne extend some distance in that direction close to the river. I believe, therefore, that the site assigned by Leake, Bursian, and Curtius to the Platanistas was outside the city, which it certainly is impossible to accept. Nor is there any reason to suppose that the Platanistas was near the Phoibaion, for Pausanias' account of the night-sacrifice in the latter building calls for no such proximity. Nor, finally, need the passage in the *Helena* of Euripides (205-209), which refers to the γυμνάσια δονακόεντος Εὐρώπητα, be understood as implying that the Dromos bordered upon the Eurotas. Euripides was writing poetry, not topography. There seem to have been few noteworthy edifices on the street from the tombs of the Agiadai to the Dromos, though the distance cannot have been very short. The tomb of Eumedes is alone mentioned, the statue of Herakles and the house of Menelaos being close beside the Dromos. A street, in all probability, turned to the west at about the point where the house of Menelaos stood, for it is only in this way that I can understand the phrase προελθόντες ἀπὸ τοῦ Δρόμου, used by Pausanias before he describes any part of the Dromos itself. After returning from this street and noting the temple and trophy to the right of the Dromos, he reaches the beginning of the course, or that end at which the races began. He then appears to follow the main avenue to the Platanistas, passing only a herōon and a temple on his way. It is noticeable that the Platanistas and its immediate neighborhood was a region closely associated with the dog-myth of Hippokoön and his sons, the herōa of those sons and of Oionos, as well as the Herakleion, being all close at hand. This, added to the

fact that a dog sacrifice was offered in the Phoibaion previous to the fight in the Platanistas, makes it probable that this was the portion of the city called Kynosoura or "Dog's-tail," unless, as is possible, the name was given to a certain district on account of some physical characteristic, as in the case of the Salaminian and Marathonian Kynosourai. The house of Menelaos being in the aristocratic quarter of Pitane⁶ we may conjecture that the district of Kynosoura extended chiefly southwest from the Platanistas, as far as the Limnai. Mesoa embracing probably the central portion of the city, as its name leads us to suppose, we may conclude that the fifth and remaining district, whatever may have been its name, covered the extreme northern and northeastern part of the city, including the Issorion and Alpion. I have already proposed Oinous as the name of this fifth quarter, relying on two passages from Plutarch and Athenaios (*Plut. Lyk.* vi. 1; *Athen.* i. 31), and believing the Knakion to have been the stream north of the Alpion. A corrupt passage in Strabo (c. 364) might have thrown some little light on the question of these Spartan districts or καθματι, but, as it stands, nothing much can be gained from it. It reads: *Μεσσόαν δ' οὐ τῆς χώρας εἰναι μέρος [ἀλλὰ] τῆς Σπάρτης, παθάπερ ναὶ τὸ Διμναῖον, πατὰ τὸν . . . να.* Among other attempts to supply the missing letters, *Συνύλανα*, *Θράνα*, *Θόρανα* and *ναὶ τὸν Θόρανα* have been suggested, but none are satisfactory.

PAUS. 3. xv. 6. *Road to the East from the Dromos* (see fig. 5): "As one goes toward the rising sun from the Dromos, there is a path on the right and a ⁴ hieron of Athena Axiopoinos; for when Herakles visited his vengeance upon Hippokoōn and his sons, just as their deed merited, he erected a hieron to Athena and called her Axiopoinos, because the ancients gave the name 'poinal' to punishment."

If we have rightly located the Dromos in Pitane and the Platanistas in Kynosura, it is reasonable to suppose that the path here mentioned also crossed the line dividing these two districts, and that the hieron of Athena Axiopoinos was also in that quarter where the myth of Hippokoōn had its home. The road probably extended to the Skias avenue, but the distance may not have been very long, nor does there seem to

⁶CURTIUS, *Pelop.* vol. ii. p. 314, note 35; BURSIAN, *Geog. von Griech.* vol. ii. p. 127, note 2.

have been anything besides this single heron that attracted Pausanias' attention. I cannot agree with Nestorides that the four roads mentioned by Pausanias as leading to or from the Dromos all left that place from about the same point and all ran in directions varying only between northeast and southeast. Pausanias would scarcely have been so very exact as to pick out only one of these and describe it as leading toward the rising sun, when all pointed nearly in that direction. As I have arranged these streets on my plan, it will be seen that one goes to the north, the next to the northeast, the third to the east, and the fourth southwest. Such seems to me a much more likely disposition.

PAUS. 3. xv. 6 to 10. *Road from Dromos to Theatre* (see fig. 5): "Going from the Dromos by another road, there is another³² heron of Athena . . . Near by, there is a³³ temple of Hipposthenes, who won many victories in wrestling; and they worship Hipposthenes in accordance with the command of an oracle, paying honor to him as if to Poseidon. Opposite to this temple is an³⁴ archaic statue of Enyalos in fetters. . . And in Sparta is the so-called³⁵ Leschē Poikilē, and near it the herōn³⁶ of Kadmos, son of Agenor, and of his descendants³⁷ Oiolykos, son of Theras, and³⁸ Aigeus, son of Oiolykos. And they say that these herōn were erected by Maisis, Laias, and Europa, sons of Hyraios, the son of Oiolykos. And these also built the³⁹ herōn of Amphilochos, because the mother of their ancestor Tisamenos was Demonassa, a sister of Amphilochos. And the Lakedaemonians alone of the Hellenes have a⁴⁰ Hera surnamed Aigophagos, and sacrifice goats to the goddess. They say that Herakles built the heron and first sacrificed goats, because Hera offered no obstacle to him when fighting Hippokoön and his sons, though on other occasions the goddess appeared to oppose him. And they say that he sacrificed goats because he lacked other victims. Not far from the theatre is a⁴¹ heron of Poseidon Genethlios and herōn⁴² of Kleodaios, son of Hyllos, and of⁴³ Oibalos."

Nestorides considers that this street ran almost due east from the Dromos to a point close to the southwest corner of the Agora, but without actually entering the square. At that point he places the Leschē Poikilē, from which building he supposes that Pausanias first went to the herōn of Amphilochos, on the right, by a street that crossed his own street at right angles; then to the left toward the theatre. Thence he makes him return to the Poikilē and continue his walk along the original street until passing the Boōnēta he reaches the Asklepieion. The herōn of Amphilochos he identifies with the ruin commonly known as the tomb of Leonidas, the same which I consider to be the temple-tomb of Kastor. But there

are several objections to offer against this arrangement of his. Aside from the fact that the Boônéta was more probably situated to the east of the Agora and not on the south, it is difficult in the first place to understand how such an important street should have been laid out so close to the Agora without being made to enter it; especially if, as in Nestorides' plan, no avenue left the Agora between the northwest and southeast corners. Again, if it did indeed connect with the Agora, Pausanias would in all probability have mentioned it in his enumeration of those avenues that started from that point. Secondly, we are unwilling to believe that he would have branched off on another street as far as the theatre on one side and the herôon of Amphilochos on the other without informing us of such a détour. There is but little doubt in my own mind that the road which he followed led directly from the Dromos to the theatre, and that from the theatre he again entered the Agora, crossed it, and followed the Apheta a few steps as far as the Boônéta, where he turned off on a side-street leading to the northeast. It is only in this way that I can explain the mention of two buildings, one immediately after the other, the first as being near the theatre, and the next close to the Boônéta.

Paus. 3. xv. 10 to xvii. 1. *Road from Boônéta to Limnaion*: "The ¹ most splendid of their Asklepieia is that erected near the Boônéta, and on the left is a ² herôon of Teleklos. . . Not far beyond is a small hill, and on it an ³ ancient temple of Aphrodite containing an armed xoanon. And of all the temples which I know of, this one alone has a second story built on it, sacred to Morpho. Morpho is a surname of Aphrodite, and the goddess is seated, veiled and with fetters about her feet. . . Near by there is a ⁴ heron of Ilaeira and Phoibe. The writer of the Epic poem Kypris says they were daughters of Apollo. And young virgins serve as their priestesses, called Leukippides, just as the goddesses are themselves named. One of the statues was restored by one of these Leukippides, who put on the statue a face in our style of art in place of the archaic one. But a dream forbade her to restore the other one. In this place an egg, wrapped in ribbons, hangs from the ceiling. And they affirm that it is the egg which Leda laid, according to the legend. Each year the women weave a 'chiton' for the Apollo in Amyklai, and the house in which they weave it they call ⁵ 'Chiton.' Near by there is a ⁶ house said to have been occupied by the sons of Tyndareus, but afterward owned by Phormio, a Spartan. To this man the Dioskouroi came in the form of strangers. And saying that they had come from Kyrene, they demanded lodging with him, and asked for the room in which they had especially delighted when they were among men. But he bade them take any other part of the house they chose, refusing them however that particular room. For his daughter happened to occupy that apartment. On the following day that daughter and

all her attendants had disappeared, and statues of the Dioskouroi were found in the chamber, together with a table and some 'silphium' on it. These things they say happened so. Advancing from the 'Chiton' in the direction of the gates, there is a ⁷ herōon of Chilon, the so-called 'wise man,' and another of a certain . . . [Iacuna] who was among the colonists to Sicily under Doricus son of Anaxandridas. . . And the Lakedaimonians have built a ⁸ hieron to Lykourgos, the law-giver, just as though he were a god. Behind the temple there is a ⁹ tomb of Eunomos, the son of Lykourgos, near the ¹⁰ altar of Lathria and Anaxandra. These were twins, and for this reason the sons of Aristodemos, being twins also, took them in marriage. They were daughters of Thersandros, son of Agamedidas, king of the Kleistontaians and fourth in descent from Kteisippos, son of Herakles. Opposite the temple is a ¹¹ tomb of Theopompos, son of Nikandros, and also a ¹² tomb of Eurybiades, who fought against the Medes at Artemision and Salamis with the triremes of the Lakedaimonians. Near by is the so-called ¹³ herōon of Astrabakos. And the place called the ¹⁴ Limnaiion is consecrated to Artemis Orthia. And they

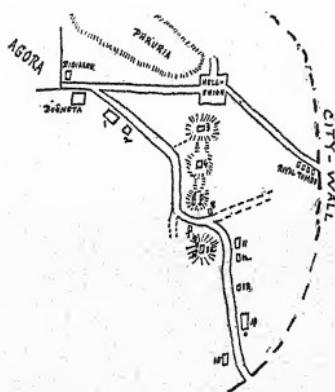


FIG. 6.

say that the xoanon is the same one which Orestes and Iphigenia once stole away from the Tauric territory. When Astrabakos and Alopekos (sons of Irbos, son of Amphisthenes, son of Amphikles, son of Agis) found the statue, they immediately went crazy. And again when the Limnatai of the Spartans, and the Kynourians and those from Mesoa and Pitane were sacrificing to Artemis, they began to quarrel, and from quarrelling they took to slaying each other, and after many had perished at the altar disease commenced to destroy those left. Thereupon an oracle ordered them to wet the altar with the blood of men. And the custom being to sacrifice that man on whom the lot fell, Lykourgos introduced as a change the practice of whipping the 'Epheboi,' and in this way the altar was covered with blood. . . And they call the goddess not only Orthia but also Lygodesma, because she was discovered in a copse of 'lygos.' And this 'lygos' being wrapped about the statue made it stand upright (*όρθων*). Not far from the Orthia is a ¹⁵ heron of Eileithya."

Five particulars in Pausanias' description of this street help us somewhat in determining its approximate direction, though its exact course must remain very uncertain.

(1) The first edifice mentioned on it, the Asklepieion, is said to be near the Boônéta.

(2) There is a small hill (*λόφος ὁν μέγας*) not far beyond the Asklepieion.

(3) A turn is made in the direction of the gates (*ἀς ἐπὶ τὰς πύλας*).

(4) He passes the tomb of Theopompos, one of the Eurypontid line of Spartan kings, whose tombs we have already been told were situated near the terminus of the Apheta.

(5) The place called the Limnaion lies near the end of the street, on flat if not marshy soil, as the name implies.

Nestorides is correct, I think, in his general arrangement of the street, but in several points I cannot quite agree with him. As I have already shown, I do not accept his view that the present road is a direct continuation of that leading from the Dromos. It so happens that I place the Asklepieion on almost the exact site that he has chosen, but I put it south, not east, of the Boônéta, and on an avenue which branches off from the Apheta. Pausanias makes mention of only one hill, though if we have located his route correctly he must have first passed a small chain of low hills, including three distinct summits, and afterward a separate height to the south, which is to-day divided from the short range by the modern chaussée. It is probable that other edifices besides the temple of Aphrodite stood on these eminences, and that Pausanias has neglected to mention the fact in every case (cf. the Issorion and Phrouria above). The two-storied Aphrodite temple may well have been on the northernmost summit of the ridge, the hieron of Ilaeira and Phoibe on the middle one, and perhaps the house called "Chiton" (or "Tunic") on the third. The street, I believe, ran along the western side of these hills, and at the "Chiton" turned off to the east between the ridge and the solitary hill, just where the carriage-road passes to-day. This turn I think is referred to in the expression "advancing in the direction of the gates," for a turn is certainly implied by it. The gates spoken of I take to have been those at the end of the Apheta to the east, and not those

to which the road itself was leading. These were evidently too distant to be so referred to (if, indeed, there were any gates between the eastern and southern ones), nor does the phrase, “*ας ἐπὶ τὰς πύλας*,” seem to me to signify actually “going to,” but rather “as if going to,” i.e., “temporarily in the direction of.” The tomb of Theopompos that is shortly afterward passed would have been probably erected not very far from the other graves of the EuryPontids; why it should have been apart from them at all, it is difficult to understand. On the summit of the southernmost hill (to the right of Pausanias) may have stood the hieron of Lykourgos, together with the tomb of Eunomos and the altar of Lathria and Alexandra. The site is a conspicuous one, and would naturally have been chosen for the erection of this ancient temple. Perhaps the tomb of Lykourgos was also situated there.¹¹ The Limnaion was in the flat district of Limnai to the southeast, perhaps on the very site of the church in the modern hamlet of Psychiko. The “Limnaion” cannot well have been the name given to the entire quarter, as Strabo seems to have believed (H. 364), but rather only that portion of it, or temenos, on which the hieron of Artemis Orthia was built.

PAUS. 3. xvii. 1 to xviii. 1. *The Akropolis*: “The Akropolis of the Lakedaimonians does not stand out conspicuous in height like the Kadmeia of the Thebans or the Larisa of the Argives, but, amidst other hills in the city, that one which rises highest they name the Akropolis. There, there is built a¹ hieron of Athena, surnamed both Poliochos and Chalkioikos. Tyndareus, as they say, began the construction of the hieron. There is also another² hieron of Athena Ergane, and at the southern stoa a³ temple of Zeus, surnamed Kosmetas, and in front of it a⁴ tomb of Tyndareus. The stoa toward the west contains⁵ two eagles with equal-sized Victories upon them, the gift of Lysander, commemorating both his achievements: the victory near Ephesus when he conquered Antiochus, the pilot of Alkibiades, and the triremes of the Athenians, and when later at Aigospotami he wiped out the navy of the Athenians. On the left of the Chalkioikos the Lakedaimonians erected a⁶ hieron of the Muses, because they advanced in battle not to the sound of trumpets, but to the music of flutes and with the sound of lyre and cithara. Behind the Chalkioikos there is a⁷ temple of Aphrodite Areia, and the xoana are as old as any in Hellas. On the right of the Chalkioikos stands a⁸ statue of Zeus Hypatos, the most ancient of all bronze statues, for it has not been cast altogether, but each part being beaten separately, the pieces have been fitted to one another, nails keeping them from parting. They say that Klearchos of Rhegion made the statue, and assert that he was a pupil of Dipoinos and Skyllis, though others say of Daidalos. Near the so-called⁹ Skenôma there is a¹⁰ statue

¹¹ Cf. PLUT. *Lyk.* xxxi. 3 and HDT. i. 66.

of a woman, named Euryleonis according to the Lakedaimonians. She won a victory at Olympia with a span of horses. Near the ¹¹ altar of the Chalkioikos stand ¹² two statues of Pausanias, the commander at Plataia. Near the statues of Pausanias is a ¹³ statue of Aphrodite Ambologēra, set up by direction of an oracle; also ¹⁴ statues of Sleep and Death. These they consider brothers in accordance with the lines of the Iliad."

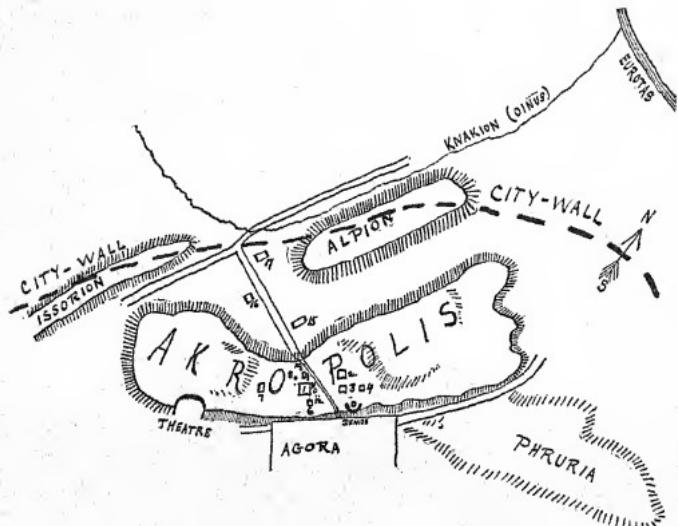


FIG. 7.

Leake's theory that the Akropolis was the flat-topped oval-shaped hill to the extreme north, which I take to be the Alpion, is easily disproved. All topographers since his time are united in opposition to such a view, principally on three grounds: (1) such a hill is wholly unfit from its position to have ever served as an akropolis, being completely commanded by a much higher hill close at hand to the north; (2) its summit is not large enough in extent to have held all the edifices that are mentioned as standing on it; (3) it is by no means the highest of the Spartan hills, while Pausanias plainly declares that the Akropolis was. One might add to these objections the fact that neither the soil nor the general contour of the hill is suitable for such a site. Each of its sides is sandy and steep, nor is there a place visible to-day where any road or path could have led up to

the much-frequented summit. Again, if this were the Akropolis, with what would we identify the much higher hills to the south, which Leake, as we have already shown, most erroneously considered the Agora site? Pausanias would have completely passed them by without notice, though the most conspicuous eminence in Sparta. Finally, there is not the slightest sign of a ruin anywhere to be found on the entire summit, while the more southern hills are well sprinkled with remains of columns and hewn blocks that certainly tell of former temples or other public edifices. I am strongly inclined to believe that these twin heights, south of the Alpion and north of the Agora, were included together under the name of Akropolis, and that the western one was not alone so called, as is now the generally recognized theory. It is true that there is a depression between the two summits, but even this depression is considerably elevated above the Agora on one side, and the valley to the north, and may well have been included within the circuit of the Akropolis fortifications, if there were any in the time of Pausanias or before. My objections to the western hill alone being the Akropolis, are the same which have been brought to bear against Leake's theory: (1) this western eminence is not so high as the one on the east, and is accordingly commanded by it from a military point of view; (2) though it is possible to imagine sufficient space upon it for all the edifices noticed by Pausanias, still they would be somewhat crowded, and little ground would be left for troops to occupy, such as must have occasionally assembled there. If then both hills together with the connecting ridge between them formed the Akropolis, the next question is concerning the position of the various buildings enumerated by Pausanias. He gives us most explicit information concerning the situation of all the minor edifices in their relation to the principal temples of Athena Chalkioikos and Erganê, but the exact site of these two temples he says nothing about. They were evidently near each other; for, after partly describing the former, he turns to the latter, gives a brief account of its stoas and the neighboring temple of Zeus Kosmetas, then resumes his description of the Chalkioikos. He notices temples and statues to the left, behind and to the right, which goes far toward proving that the

Athena Erganê must have been in front or to the east. I think, therefore, that we have good reason to believe that the Chalkioikos was on the left-hand side of his road as he crossed the low central ridge of the Akropolis, and that the Erganê temple was close at hand on his right. Perhaps the scanty ruins, which may to-day be seen on either side of the mule path that traverses the ridge, belong to these two temples respectively, or at any rate to the buildings grouped about them. If my conception of the topography is correct, it will be seen that the summits of the Akropolis did not serve as temple sites, but rather the lower portion of the height. This is the more likely, seeing that Pausanias speaks of no one of these temples in particular as being on the summit.

PAT. 3. xviii. 2-5. *From the Akropolis toward the Alpion* (see fig. 7): "Going toward the so-called Alpion there is a¹⁵ temple of Athena Ophthalmitis. They say that Lykourgos erected this after having been deprived of an eye by Alkandros, since the laws which he had made did not happen to please Alkandros. Having fled to this place and being protected by the Lakedaimonians from losing his remaining eye, he for this reason built a temple to Athena Ophthalmitis. Advancing from this place there is a¹⁶ hieron of Ammon. They tell the following things concerning¹⁷ Artemis Knagia. They say that Knageus, a native Spartan, marched with the Diokouroi against Aphidna, and being taken captive in the battle and being sold in Krete, he served as a slave at a place where there was a hieron of Artemis belonging to the Kretans. In time, however, he escaped and came back with a maiden priestess carrying the statue. For this reason they say that they name it Artemis Knagia. But this Knageus appears to me to have arrived in Krete in some other way than as the Lakedaimonians say, since I don't believe that there ever was a battle at Aphidna, inasmuch as Theseus was being retained at the time among the Thesprotians, and the Athenians were not in harmony with him but rather inclined to favor Menestheus. Nor could one believe, even if the contest really did take place, that captives were taken from those who conquered, especially when the victory was a decisive one, so that Aphidna itself was taken. But enough of this discussion."

Both Bursian and Stein regard the Alpion as the name given to the easternmost summit of what I have considered to be the Akropolis. But they overlook the fact that Pausanias uses the expression, *ως εἰνι τὸ Ἀλπίον*, on leaving the Chalkioikos, which can only mean "towards," "in the direction of." If Bursian and Stein are right, however, he could not have gone "in the direction of" the Alpion without actually reaching it and ascending it immediately, the

two hills (if they are to be considered as two) being close together. If the Alpion be the northern hill, as I suppose it to be, the path now taken by Pausanias may have led N.E. through the narrow ravine to the south of it or else N.W. to its western extremity. In either case he would have gone $\alpha\varsigma\ \varepsilon\pi\iota\tau\circ\ \text{"Alpi}o\text{v}$. The latter, however, seems more likely, and it may be that these three temples were erected somewhere on the line of the modern mule-path, which after leaving the Akropolis ridge meets another path from the S.W. and then follows the ravine to the north of the Alpion until it reaches the low ground bordering on the Eurotas. These present paths, I take it, are very nearly on the exact sites of this road and the one already described as leading from the Theomelida to a probable gate in the city wall. The wall itself may have been led over the summit of the Alpion, where it is likely that no prominent edifice stood unless it was the hieron of Artemis Knagia. I agree with Nestorides in seeing an etymological connection between the surname of this goddess and the old stream Knakion (see p. 10), and with him I consider that stream to be the one flowing through the ravine to the north of *his* Issorion and *my* Alpion.

Three roads are described as leading from the city of Sparta; one to Amyklai, one to Therapne, and one toward Arkadia. The first was evidently a continuation of the Skias street; the second, of the Apheta; and the third may have led from one of the western gates, probably that one near the Theomelida (*cf.* fig. 5). The fact that they are spoken of and described in the above order might be regarded as favoring Nestorides' theory concerning the direction of the Apheta and Skias street, were it not easily shown that Amyklai, being the most important suburb of Sparta, would naturally be described the first thing after the city itself. Moreover, the road to Therapne could scarcely have been the prolongation of Nestorides' Skias street, but must have left the city much farther to the south. On the road to Amyklai, the river Tiasa was crossed, near which was a hieron of the Charites. There seems to me no reason to doubt the identity of this Tiasa with the modern Magula, a copious stream

which must have flowed close to the city wall. The hieron of the Charites would then have been somewhere near the site of the present chapel of St. Nicholas, just across the modern bridge, near which, according to Nestorides, some relics of an ancient bridge were to be seen not very long ago. The road to Therapne, after passing a xoanon of Athena Alea (*cf. Xen. Hell. 6, 5, 27*) and a hieron of Zeus Plousios close to the bank, crossed the river and then followed the left bank southward, passing a temple of Asklepios Kotyleus and a hieron of Ares. Whether the river was crossed by bridge or by fording it is impossible to tell. It is again passed over by Pausanias on leaving Therapne and going toward Taygetos. On this road he first notices the Phoibaion with its temple of the Dioskouri. Nestorides has put this to the north of the Tiasa river; a mistake, I think, for in going west from it no river seems to be passed until the Phellia is reached. Nor is it necessary to regard the Phoibaion as having been very near the wall. The nocturnal ceremonies that took place there do not require the close neighborhood either of the city wall or of the Platanistas, as some have supposed. The ephebi also sacrificed to Achilles, at the hieron to the northwest of the city, just before the battle in the Platanistas**(Paus. 3. xx, 8)*!

Near the Phoibaion were the temple of Poseidon Gaiaochos and the Hippodrome (*Xen. Hell. 6, 5, 30*). The road shortly afterward joined the one leading to Amyklai, near a place called Alesiae on the northern bank of the Phellia river. But it is beyond the scope of this article to follow it any further. On the road toward Arkadia was a statue of Athena Pareia; near it the hieron of Achilles already referred to; and beyond this the tomb of Hippos. But here also we are getting beyond the limits of Sparta proper. I bring my essay to its close, fully realizing the fact that I have added but little certainty to our knowledge of Spartan topography. There are many disputed points (as many as before, no doubt) left for excavation, and excavation alone, to settle. It will not be necessary to discover much, in order to identify the hills and to decide on the direction of the avenues. But whether the ground will or will not yield us the definite information that is so eagerly expected, whether my views

shall be confirmed or proved incorrect by future discovery, my endeavor has been to present what I believe to be the most common-sense interpretation of Pausanias' own language. It is Pausanias himself whose reputation as a topographer is chiefly at stake!

NICHOLAS E. CROSBY.

SPARTA,
January, 1893.

THE NEATHERD IN THE ART OF THE MYCENÆAN PERIOD.

The picture of the bull on the palace walls of Tiryns, that earliest of European frescoes, has been regarded with such attention, because of its historical importance, that several theories have arisen with respect to its obscure meaning. More recently, also, other instances, where the same group of a man and a bull is represented, have been collected and carefully compared. The first explanation of the bull of Tiryns was offered by Schliemann and Fabricius in editing the discoveries of that site. Being especially alive to every point where their finds could touch the *epos*, they connected the Homeric acrobat of Iliad xv. 679, who leaps from one running horse to another, with the man of Tiryns over his bull (Fig. 8). F. Marks gives in the *Jahrbuch* (1889, p. 119) of the

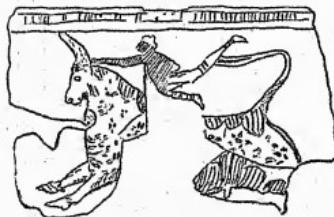


FIG. 8.

German Institute, another explanation. On a silver coin of Katane he finds a delineation of a river deity under the form of a man-headed bull. A satyr running above the animal makes the resemblance still closer; and he, therefore, concludes that the bull of Tiryns is a river god. M. Mayer thinks we have in the Tiryns fresco an instance of *ταυροκαθάψια*, a sort of Thessalian bullfight. The sport was exhibited at Rome by Claudius. Thessalian horsemen chased the bulls about the circus, and springing upon them when they were

tired, dragged them to the ground by their horns. All of these explanations have, however, failed to find confirmation in more recent finds and generalizations concerning Mycenæan art. These tend to show that neither religious rites nor pastimes were so developed in that warlike age as to permit of adorning a palace wall with a representation taken from the sphere of either.

The picture of Tiryns is now regarded as more thoroughly *genre* than was at first supposed. The man over the bull is not a sylvan deity nor a professional acrobat. He is merely an oxherd. According to Schnchhardt (*Schliemann's Ausgrab.* p. 148) we see in him "nur einen gewöhnlichen Menschen der das Thier zu bändigen sucht." If a parallel must be found to him in early Greek literature, it would be Philoitos, the loyal neatherd of the *Odyssey*; or, to travel down to the literary revival of stock-raising under Theocritus and Vergil, we should encounter the sentimental herdsmen Daphnis and Alphesibœus. The man who seizes the bull's horn, in the picture at Tiryns, is trying to hold the bull as it breaks away from him in frantic terror. He seeks to put into practice the proverbial, "master of the horns is master of the steer."

Some of the decorative wall painting at Tiryns, as is well known, contained Egyptian glass; and on the ceiling at Orchomenos was also painted a thoroughly Egyptian motive. Moreover, the scenes on the dagger blades from Mykenai remind us strongly of the same source. Schuchhardt from the data then in his possession, naturally, did not recognize that the same was true of the fresco of the bull; but contented himself with saying, on p. 358: "Den lebhaften Verkehr mit Aegypten beweisen . . . das Muster der Decke von Orchomenos und *der Wandmalerei von Tiryns*." The English translation of this passage, p. 317, carelessly renders this:—"that there was an active trade with Egypt is proved by . . . the pattern on the ceiling at Orchomenos and *the fresco from Tiryns*." What was, indeed, a lucky mistake in the translation brought the English version nearer to the truth than the original. This it is our aim to show by the subjoined illustrations.

That the picture of Tiryns represents an herdsman, and that it is an Egyptian subject, can be proved by comparing it

with a picture of a very much earlier age from the Nile valley. It is at Gizeh in a tomb belonging to the fourth dynasty, and is reproduced (Fig. 9) from Lepsius' *Denkmäler* (*Abth. ii. Bd. iii. 14 b.*). A number of oxherds make ready to slay an enormous steer and offer him to the *ka* of the tomb-owner. The steer makes little resistance. Only his outstretched

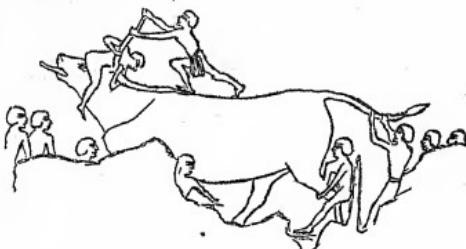


FIG. 9.

tongue gives evidence of previous struggles. Two men have hold of his horns. One of them even seems to have clambered up so as to sit astride of his head. Others have thrown, or anon will throw themselves, upon his feet, and even his tail is not free to move. The Egyptian Delta was perhaps too level to allow of netting a runaway steer; and, consequently, in order to catch him without doing him serious injury, the herdsmen close around and fall upon him from all quarters. A somewhat similar struggle with a bull is, perhaps, going on in Fig. 10, taken from Prisse d'Avenues



FIG. 10.

(*Mon. Egyptiens*, Pl. xi. 3); but so much of the scene is wanting that the evidence it gives on this point is of but little value.

In the Egyptian, as well as in the Tirynthian wall painting, an oxherd appears to stand upon the back of the bull. This is probably the feature which has been most misleading about the picture. Thus, Tsountas, in his article (*Eph. Aρχ.*, 1889, σ.

159), describing the herds and herdsmen on the gold cups of Vapheio, cannot see how the man represented as falling from the bull's back came to be there, for he is well aware that no one in seeking to stop a bull leaps upon his back.

Miss Sellers on p. 351 of her translation of Schuchhardt says, speaking the last word on the subject: "It is still difficult to say whether the curious position of the man on the back of the bull is due to lack of skill on the part of the artist who, unable to depict two objects side by side, places one above the other; or whether a feature of the hunt was to jump on the back of the bull." But, unfortunately, on weighing the question further she considers the second and erroneous supposition the more probable. The artist is merely employing a very usual convention in Egyptian wall painting. He places the figures in the background above the others. An exaggerated case will show how he works. Take for example the Egyptian vintage scene, Fig. 11, also from

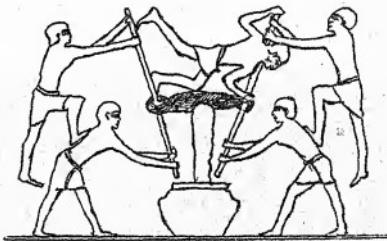


FIG. 11.

Gizeh and from Lepsius (*Bd.* iii. 53 b). The five men who twist the ends of the bag, in reality, all have their feet on the ground. Yet, to a person unused to the conventions of Egyptian art, they appear to be supported by two of their own number by as difficult a feat as gymnasts perform when they stand, some on the shoulders of the others, to make a pyramid.

In the Egyptian and Tirynthian pictures we have plains, but in the reliefs on the Vapheio cups, Fig. 12, rugged scenery enters. The bulls themselves seem, also, of a sterner sort. In their mountainous pastures, instead of being run down and caught, when tired, the wilder bulls could, doubtless, be

caught more easily by a net. They were driven through some narrow place and entangled in the meshes of a net stretched from tree to tree. The highlands of Syria and Assyria must have known this contrivance. Jerusalem has seen it used, when Isaiah can tell her (li. 20): "Thy sons have fainted, they lie at the head of all the streets, as a wild bull in a net." In another scene on the same Vapheio cup, we see two men who have tried to lead a bull by the horns. As in the Odyssey iii. 439, *βοῦν δ' ἀγέτην περάων Στράτιος καὶ δῖος Ἐχέφρων*; but the angry bull is too quick for them. The one he hurls to the left, and, dashing onward, carries the other upon his horns. His would-be captors are evidently the same class of men that we have already seen at Gizeh and

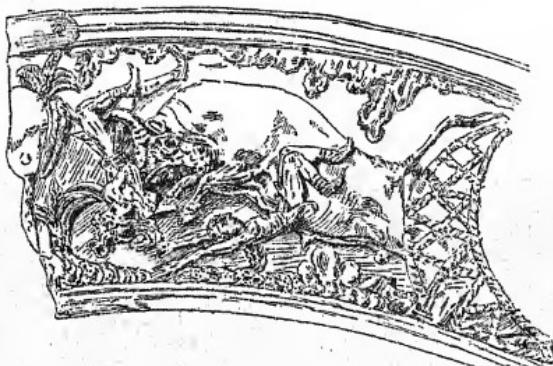


FIG. 12.

at Tiryns, that is to say, they are neatherds. On certain engraved gems of the period of Mykenai, which represent a figure running or hovering above some animal, we have the same herdsmen again (*Eph. Arch.*, 1888^{πτ.}, 19, 34 and 35), only more awkwardly and imperfectly made. It may be concluded, perhaps, from these representations of cattle on their art works, that the Mykenai folk enjoyed more the eating of kine than the drinking of wine. The bull picture at Tiryns was probably intended to show the good cheer found in the palace, when a bull like that was slain and served to the retainers. On the Vapheio cups, contrary to expectation, we find no drinking scenes, as on Greek vases of the classic

period ; but, curiously enough, instead of them the herdsman and his cattle. Even in later times, men's appetite for fat oxen was marvellously strong. Despite the sternest warning the followers of Odysseus could not be prevented from falling upon the oxen of the Sun.

It is generally conceded that there were but two original schools of art before the rise of Greece, namely, Egypt and Assyria. In consequence of this, all the early works of art from other countries are a mingling of Egypt and Assyria in different proportions, tinged with a third and local element. It would be interesting to trace these three influences at work in the Tiryns painting and the Vapheio cup. In style these two works of the period of Mykenai are not closely alike. The Tiryns picture seems more allied in technique to the wall paintings of Egypt. The rigid profile, as well as the convention of placing the man above the bull instead of beside him, are Egyptian characteristics. The absence of background and the lack of muscular development in the Tiryns picture, come likewise from the same source. In the Vapheio cups the decoration is of *repoussé* metal work. As such it would remind us of the metal work in Solomon's temple and on the Balawat gates. The background in these cups is represented as rough or mountainous. This is very rarely seen in Egyptian paintings, but is of frequent occurrence on Assyrian reliefs. The close study of nature shown in the forms of the plants and animals, and the strong muscular development in the figures of the latter, are traits which belong more to the art of the Euphrates valley than to the Nile. A third influence at work at Tiryns and Vapheio is, naturally, the local one. One of its effects is shown in the choice of subject. The ox was, as we have noticed before, especially dear to the Mycenæan people. Another indigenous feature is the dress of the men, which finds but little parallel in Egypt or Assyria. The native fondness for bitter and stubbornly equal strife is also remarkable. Single combat of man against bull, as is shown at Tiryns, is in striking contrast to the Gizeh picture where some half-dozen herdsmen attack the steer. In this early Europe a new spirit of fairness and moral symmetry is infused into the imported Oriental art. We can sympathize with the neatherds quite as well as with their charges. A

similar relation between the men and the animals is found in the lion hunt on the dagger blade found at Mykenai. In this picture, one of the hunters lies dead; but in the royal hunts of Egypt and Assyria the game only is slain. The warriors who dwelt at Tiryns loved to see the danger of equal combat. In decorating their habitations, the artist, although trained in Oriental methods and subjects, was yet encouraged to lend his work a spirit and a vigor quite autochthonous.

GEORGE B. HUSSEY.

UNIVERSITY OF NEBRASKA,
August, 1898.

FASTIGIUM.

IN PLINY, N. H. XXXV. 152.

Mr. Carleton L. Brownson in his article on archaic pediment reliefs from the Akropolis (p. 28, ff. above) quotes Pliny, N. H. xxxv. (12, 45,) 152, in support of his theory of the evolution of pediment sculpture. Although Mr. Brownson quotes the passage (p. 34) it may be as well to repeat it here: "Butatis inventum est rubricam addere aut ex rubra creta fingere, primusque personas tegularum extremis imbricibus inposuit, quæ inter initia prostypa vocavit, postea idem ectypa fecit. hinc et fastigia templorum orta." Mr. Brownson remarks: "*Fastigia* may from the whole connection and the Latin mean 'pediments.' Here then we have stated approximately the conclusion which seems at least probable on other grounds, namely, that the tympanum of the pediment was originally filled with a group in terracotta, beyond doubt painted and in bas-relief." Although Pliny's words are not of vital importance to Mr. Brownson's argument, they seem to deserve a brief discussion quite irrespective of the application made of them.

So far as there is any doubt as to the meaning of this passage, it lies in the words *prostypa*, *ectypa*, and *fastigia*. I am unable to find any passage in which *prostypa* and *ectypa* are set side by side in such a way as to show just how they differ. The difference usually assumed is that assumed by Mr. Brownson, namely, that between low relief and high relief. I would suggest the possibility that *prostypa* may be (high or low) reliefs of the ordinary kind with a background, while *ectypa* may perhaps be reliefs without background, if such an expression is admissible—such works, for instance, as the well-known terracottas in the British Museum representing Perseus and Bellerophon.¹ Such reliefs *à jour* might

¹ MILLINGEN, *An. uned. Mon.* ii., pl. 2, 3; MÜLLER-WIESELER, *Denkmäler*, I. xiv. 51, 52. Discussed in the *Am. Jour. of Arch.* iii. (1887), p. 33 f. See also OVERBECK, *Plastik*, 3d Ed., i. p. 161 ff.

properly be called *εκτυπα*; there is, however, so far as I know, too little evidence available to make further discussion of any value.

With *fastigia* the case is different. The word *fastigium* is by no means rare, and its general meaning of roof, or more properly gable, is well known, but Mr. Brownson wishes to render it *pediment group*, which is rather different. It is, of course, absurd to suppose that the invention of terracotta reliefs is regarded by Pliny as the cause of triangular gables or of sloping roofs; that is, of *fastigia* in the ordinary signification of the word. The reference must obviously be to some part of the adornment of the sloping roof or gable, that is, to the cornices, the pediment groups, or the acroteria. We may therefore leave out of account all passages in which *fastigium* is used to designate a slope² or merely the top of a building.³ The exact meaning of the word, and the possible applications of it to architectural members or ornaments not covered by the exact meaning, can be learned only by an examination of those passages in which the word is used in an architectural sense. Most of these passages are in Vitruvius.⁴

Vitruvius (iii. 4, 12, p. 81), says: "tympani autem quod est in fastigio altitudo sic est facienda uti frons coronæ ab extremis cymatiis tota dimetriatur in partes novem et ex eis una pars in medio cacumine tympani constituatur, dum contra epistylia columnarumque hypotrachelia ad perpendiculum respondeat. coronæque supra æqualiter imis præter simas sunt conlocandæ. insuper coronas simæ, quas Graeci ἐπαιστίδæ dicunt, faciendæ sunt, altiores octava parte co-

² E. g., VITRUV., VIII. 6 (5), 8; 7 (6), 6; v. 9, 7.

³ E. g., SUETON., Aug. 94. OVID., Met. i. 378 f. Many other examples might be mentioned to no purpose. OVID., Met. xv. 670 ff. "In serpente deus prænuntia sibila misit, | adventuque suo signumque arasque foresque | marmoreumque solum fastigique aurea movit" is not to be taken literally. The *fastigia aurea* is the top of the temple, opposed to *marmoreum solum*.

⁴ I give a list of the passages in which Vitruvius uses *fastigium*, but shall discuss only those that seem to me of importance. The pages cited are those of the edition of Rose and Müller-Strübing: ii. 1, 3, p. 34; iii. 1, 2, p. 69; iii. 2, 5, p. 71; iii. 4, 12, pp. 81, 82; iv. 2, 2, p. 88; iv. 2, 5, p. 90; iv. 3, 6, p. 93; iv. 7, 5, p. 100; v. 1, 10, p. 107; v. 8, 1, p. 119; v. 9, 7, p. 124; vii. 1, 3, p. 163; vii. 1, 6, p. 164; vii. 1, 7, p. 165; vii. 5, 2, p. 173; vii. 5, 3, p. 173; vii. 5, p. 174; vii. 5, 6, p. 174; viii. 6, 3, p. 206; viii. 7, 3, p. 207; viii. 7, 6, p. 209; x. 19, 6, p. 274.

ronarum altitudinis, acroteria angularia tam alta quantum est tympanum medium, mediana altiora octava parte quam angularia. 13. Membra omnia quæ supra capitula columnarum sunt futura, id est, epistylia zophoræ coronæ tympana fastigia acroteria inclinanda sunt," etc. "The height of the tympanum which is in the *fastigium* should be so made that," etc. "The corner acroteria [should be made] as high as is the middle of the tympanum, the middle ones higher by one-eighth than the corner ones. All the members above the capitals of the columns, i. e., epistles, friezes, cornices, tympana, *fastigia*, and acroteria, should be inclined," etc. Here the tympanum is spoken of as in the *fastigium*. The *fastigium* must then be regarded either as the whole of which the tympanum forms a part, or as something in which the tympanum is contained, or by which it is surrounded, that is to say, either as the whole gable or as the projecting lines (cornices) by which the tympanum is defined and shut in. But at the end of the passage, epistles, friezes, cornices, tympana, *fastigia*, and acroteria are mentioned as the members above the capitals of the columns, and the order in which they are mentioned shows that they are counted from the columns upward. The *fastigia* here come between the tympana and the acroteria. Here, then, *fastigium* can be nothing else than the projecting front of the roof, i. e., the oblique cornices. As this meaning is one of the two possibilities in the beginning of the passage, we may safely assume that in the whole of this passage *fastigium* denotes the oblique cornices.

The same result is obtained from two other passages. The first is iv. 2, 2, p. 88: "ideo quod antiqui fabri quodam in loco ædificantes, cum ita ab interioribus parietibus ad extremas partes tigna prominentia habuissent conlocata, inter tigna struxerunt supraque coronas et fastigia venustiore specie fabrilibus operibus ornaverunt"—"they adorned the cornices and *fastigia* with artificers' works." That the cornices (coronæ) and fastigia are thus spoken of in one breath as being adorned in the same way shows that they must be similar one to the other. The second passage is iv. 2, 5, p. 90, "etiamque antiqui non probaverunt neque instituerunt in fastigiis mutulos aut denticulos fieri sed puras coronas, ideo

quod nec cantherii nec asseres contra fastigiorum frontes distribuuntur nec possunt prominere, sed ad stillicidia proclinati conlocantur." "The ancients did not sanction or teach that mutules or dentils be made in the *fastigia*, but plain cornices, because neither the rafters nor the laths are arranged transversely to the fronts of the *fastigia*, and cannot project, but are placed sloping for the sake of the rain." This can apply only to the oblique cornices, for the horizontal cornice⁸ frequently has dentils. Indeed, the rule laid down by the "ancients" of Vitruvius was not carefully observed, as dentils under the oblique cornices also occur (*e. g.*, in the temple at Priene).

Vitruvius says in iv. 7, 5, p. 100, "supra trabes et supra parietes traiecturæ mutulorum parte IIII altitudinis columnæ procientur, item in eorum frontibus antepagmenta figantur, supraque ea tympanum fastigii structum seu de materia conlocetur, supraque id fastigium columen cantherii templa ita sunt conlocanda," etc. Here the "tympanum fastigii" is equivalent to "tympanum quod est in fastigio" above, and the last words are to be rendered "and above that the *fastigium*, the peak, the rafters, and the purlins should be so placed," etc., the word *id* after *supra* not being in agreement with *fastigium*, but referring back to *tympanum*.

When Vitruvius uses the word *fastigium* in a technical sense, and uses it accurately, he means the oblique cornice (including the sima) of a pediment. In its more general sense the word means, as everyone knows, gable, roof, and top. From which of these uses does Pliny's expression, "hinc et

⁸ Incidentally these passages show how Vitruvius uses the word *corona*. In iii. 4, 12, "frons corone" is evidently the horizontal cornice, below in "coronæque supra æqualitur imis prætersimas," "insuper coronas simæ... altiores octava parte coronarum altitudinis," the oblique cornice exclusive of the sima is evidently referred to by *corona*, while in 13, "zophora corone tympana fastigia," the *coronæ* are again the horizontal cornices. So in iv. 2, 2, the *coronæ* appear to be the horizontal cornices, while in iv. 2, 5, the *pure coronæ* are distinctly said to be *in fastigiis*. In iv. 3, 6, p. 93, "reliqua omnia (*i. e.*, all above the metopes of a Doric temple), tympana simæ coronæ, quemadmodum supra scriptum est in Ionicis ita perficiantur," the *fastigia* are not mentioned at all, probably because *sima* and *corona* are mentioned, and *sima* + *corona* = *fastigia*. It seems that *corona* denotes a cornice without sima. The horizontal cornice has no sima, and thus is called *corona*, *κατ' ἐξοχὴν*, the term *corona* being applied to the oblique cornices only when the sima is to be expressly or by implication excluded.

fastigia templorum orta," derive its meaning? Pliny has just been describing the beginnings of terracotta relief work. Let us see what terracottas are known which can be connected with *fastigia* in any sense. Beginning with those mentioned by ancient writers we find that Vitruvius, in describing a class of temples called *barycephala*, says (iii. 2, 5, p. 71), "ornanturque signis fictilibus aut aereis inauratis earum fastigia tuscanico more, uti est ad Circum Maximum Cereris et Herculis Pompeiani, item Capitolii," "and their *fastigia* are adorned with figures of terracotta or gilded bronze in the Tuscan fashion as is that near the Circus Maximus of Ceres and of Hercules at Pompeii, likewise of the Capitolium." Pliny, N. H. xxxv. 12, 157, "fictilis in fastigio templi eius (*sc.* Iovis) quadrigas," and xxviii. 2, 16, "cum in fastigium eiusdem delubri præparatæ quadrigæ fictiles in fornace crevissent," refers to the adornment of the Capitolium in Tarquin's time. Livy (xxix. 38) tells us that the terracotta quadriga was afterward replaced by a quadriga of gilt bronze, to which Vitruvius doubtless refers. This chariot stood, not in the pediment, but on the top of the gable, the central acroterium of the temple.⁶ Statues *in fastigio* may, then, be acroteria, not pediment statues. So when Pliny (xxxvi. 5, 18) says, in speaking of Bupalos and Athenis, "Romæ eorum signa sunt in Palatina æde Apollinis in fastigio et omnibus fere quas fecit divos Augustus," he can hardly intend to say that there were enough pediment groups of just the right size by Bupalos and Athenis to furnish "nearly all" the temples built by Augustus. Acroteria are not necessarily so accurately fitted to the size of the building they adorn.

Pliny (xxxv. 12, 158) says "[fictilia] fastigia quidem templorum etiam in urbe crebra et municipiis, mira cælatura et arte suique firmitate sanctiora auro, certe innocentiora," and again (xxxvi. 2, 6) "tacuere tantas molis in privatam domum trahi præter fictilia deorum fastigia." What are these "fictilia fastigia"? We have seen that statues *in fastigio* are acroteria according to Pliny's usage. Can the word *fastigium* alone be used to denote a figure standing above the

⁶This is plainly to be seen in the phototype of the relief from the arch of Marcus Aurelius, BRUNN, *Denkmäler*, No. 269, cf. also LANCIANI, *Pagan and Christian Rome*, p. 90. The upper part of Lanciani's plate is indistinct.

pediment? I know of but one instance of a translation of *fastigium* into Greek, and in that instance it is rendered by *ἀκρωτήριον*. Suetonius (*Div. Iul.* 81) says, "Calpurnia uxor imaginata est conlabi fastigium domus maritumque in gremio suo confodi." Plutarch (*Cæs.* 63 [738]) tells that Cæsar awoke and found Calpurnia talking in her sleep, apparently dreaming that she held him murdered in her arms. "οἱ δὲ οὐ φασι τῇ γυναικὶ ταύτην γενέσθαι τὴν ὄψιν· ἀλλὰ ἡν γάρ τι τῇ Καίσαρος οἰκίᾳ προσπείμενον οἷον ἐπὶ κεσμῷ καὶ σεμνότητι τῆς βουλῆς φηφισαμένης ἀκρωτήριον, ὡς Λίβιος ἴστορεῖ, τοῦτο ὅνταρ ἡ Καλπονορέλα θεασαμένη καταρρηγνύμενον ἔδοξε ποτνιᾶσθαι καὶ δακρύειν.") It may be that *ἀκρωτήριον* is improperly used by Plutarch, but that is hardly probable. It is far more likely that *ἀκρωτήριον* here denotes the free standing figure on the top of the roof and that *fastigium* in Suetonius is equivalent to *signum in fastigio* in some of the passages of Pliny. When Livy (xl. 2) says "[atrox tempestas] fastigia aliquot templorum a culminibus abrupta fœde dissipavit," it is hardly possible that the *fastigia* should be anything else than figures standing exposed to all the fury of the wind. Such figures standing in *culminibus* are none other than acroteria. When the word *fastigium* is applied to sculpture it designates, then, not pediment-groups but acroteria.

In recent years many terracotta fragments have been found, notably at Selinous and Olympia, which served as sheathings for cornices and the like.⁷ It is possible that Pliny's words, "hinc et fastigia templorum orta," may refer to such terracottas, the word *fastigium* being then used in the strict architectural sense of Vitruvius. This is, however, improbable, for Pliny has been discussing reliefs which, being at the ends of the roof tiles, projected above the edge of the roof. Now the terracotta sheathings are, as a rule, not

⁷ There can be no doubt that Plutarch uses *ἀκρωτήριον* as a translation of *fastigium*. CIC., *Philippic.* ii. 48, 110, says, "quem is (sc. Cæsar) maiores honorem consecutus erat quam ut haberet pulvinar, simulacrum, fastigium, flaminem?" Cf. FLORUS, ii. 18, 91, "omnes unum in principem congesti honores: circa templo imagines . . . fastigium in domo," etc.

⁸ DÖRFFELD, GRAEBER, BORRMANN, and SIEBOLD, *Einundvierzigstes Winckelmanns program*, Berlin, 1881, cf. BÖTTICHER, *Olympia*, p. 196 ff. See Mr. Brownson's remarks, p. 80 f.

reliefs, and do not project above the roof. They cannot in any way be regarded as a development from the reliefs of Butades. On the other hand, acroteria stand to the front of a temple in a somewhat similar relation to that occupied by the reliefs of Butades to the side. They might, at any rate, be regarded as a development from those reliefs. It would seem, therefore, that Pliny refers, in the words cited, to acroteria.⁹

My conclusion, if correct, does not go far to invalidate Mr. Brownson's general results, for the passage from Pliny was far from being one of his main arguments. I cannot, however, refrain from suggesting that if terracotta pediment-reliefs were ever in vogue, it seems strange that no recognizable fragments of them have survived ; for terracotta, though fragile, is exceptionally durable, and is not exposed to the dangers of the lime-kiln, the smelting-pot, or the forge, as are other materials employed for sculpture and the like. But my purpose is not to attack Mr. Brownson's conclusions, but to explain Pliny's use of *fastigium*.

HAROLD N. FOWLER.

AUSTIN, TEXAS,
May, 1898.

⁹CICERO *de Orat.* iii. 46, 180. "Capitolii fastigium illud, et ceterarum ædium, non venustas sed necessitas ipsa fabricata est. Nam cum esset habita ratio, quemadmodum ex utraque tecti parte aqua delaberetur, utilitatem templi fastigii dignitas consecuta est ; ut etiam si in celo statueretur, ubi imber esse non posset, nullam sine fastigio dignitatem habiturum esse videatur" refers not to the pediment sculptures especially, but to the entire gable with all its wealth of color and gilding. At the same time the slope of the roof is prominent in his mind.

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
STUDIES AT ATHENS.

EXCAVATIONS IN THE THEATRE AT SICYON
IN 1891.

[PLATE XIII.]

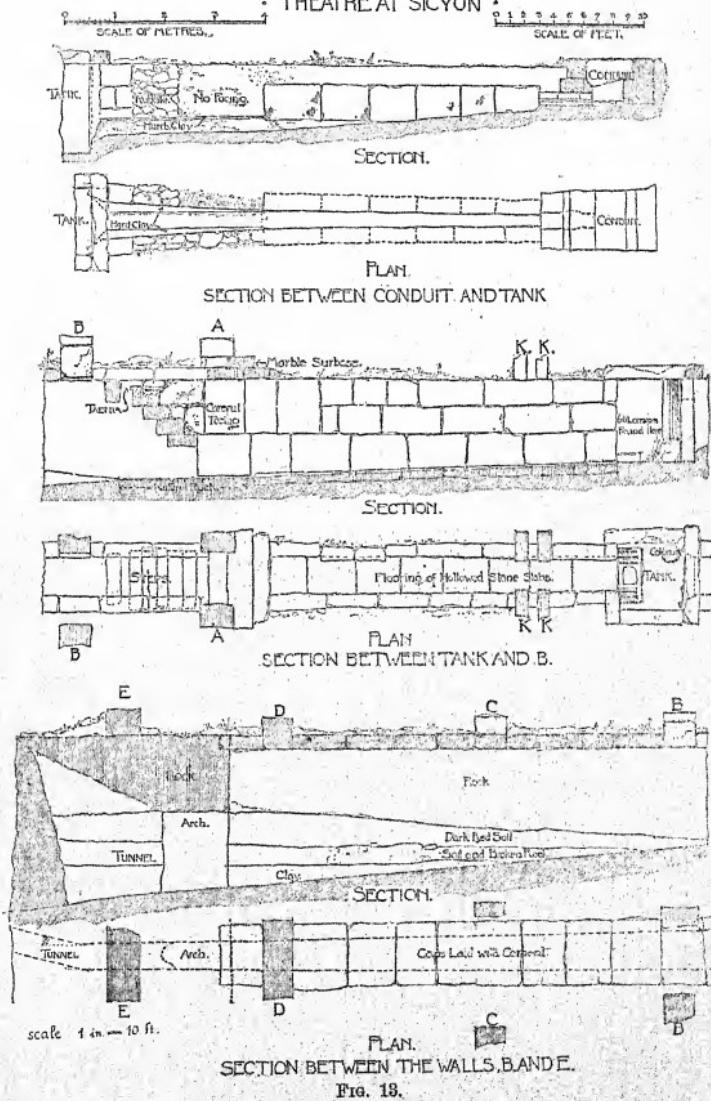
In the "General Report of the Excavations" at Sicyon by Mr. McMurtry,¹ under the sub-heading, "The Orchestra," some description is given of "an elaborate drainage-system" in the theatre. In my "Supplementary Report," *Ibid.*, p. 25, mention is made of the "so-called *ὑπόνομος*" and of the uncertainty as to "whether it served as reservoir, drain, or for some other purpose," an uncertainty which it was at that time impossible to dispel.

At the suggestion of Professor Merriam, Dr. Charles Waldstein, Director of the School, procured for me from the Greek authorities permission to resume work at the theatre of Sicyon. The excavations were carried on between July 27 and August 4, 1891, having as their object the solution of the problem of the theatre's subterranean structure. The results obtained are as follows:

The *ὑπόνομος*, or underground passage, in its main extent begins at a point between the walls *E* and *D*, in the plan annexed to the above mentioned reports (see also the accompanying PLAN of vertical and horizontal section p. 389) about 1.80 m. from *E*. It is cut down straight through the crust of native rock to the clay which lies below, its depth being about 2.25 m. or a trifle more. Its width here is about .56 m. At a depth of 1.60 m. below the upper surface of the native rock, and 1.25 m. below the shelf cut for the reception of the cover-stones, appears the mouth of a tunnel, which is of equal breadth with the *ὑπόνομος* and is now almost entirely

¹ *Am. Jour. of Arch.*, v. p. 267 ff. and *Papers of the Am. School at Athens*, v.

• HYPONOMOS •
IN THE
THEATRE AT SICYON •



SECTION BETWEEN THE WALLS B AND E.

FIG. 18.

choked with a deposit of dark-red earth; this tunnel continues the *ὑπόνομος* to an unknown distance into the rocks beyond *E*.^{*} The deposit of earth washed into the *ὑπόνομος* did not equal the full height of the tunnel, so that a small opening was visible at the end of the main *ὑπόνομος* before the workmen began digging. Removal of the earth to the distance of about one metre in the tunnel, and probing of the small unfilled space with a long crowbar, did not enable us to reach the end, nor could anything be well made out with torches in so narrow an opening. The workman chiefly occupied here assured me that he saw "rats as large as cats" (*ποντίκια μεγάλα σὸν γάταις*) in this hole. So far as can be conjectured, for further excavation here was out of the question at the time, this continuation of the *ὑπόνομος* debouches in one of the old subterranean waterways of the plateau. From the point above mentioned, between *E* and *D* to *B* (on the PLAN) the contents of the *ὑπόνομος*, from the depth of about 1.25 m. to that of about 1.90 m., were found to be dark-red soil, such as covered the orchestra and other portions of the theatre before excavations were undertaken; from the depth of about 1.90 m. to that of about 2.30 m. was found a deposit of similar soil interspersed with bits of native rock, earthenware, and cement (?). Below this the white clay begins to appear. From the point between *E* and *D* to and just beyond *B* the *ὑπόνομος* was carefully covered with slabs of soft native conglomerate, which had been quarried apparently in cutting out portions of the stage-structure. This covering had been laid originally with a whitish cement, as was evident from that found under the edges of the slabs raised between *E* and *D*. As we advanced toward the orchestra, we found the native rock becoming much more friable, passing almost imperceptibly into the native white clay at the place marked in the plan as "excavated below the level of orchestra." The deceptive appearance of this crumbling rock, which cracks both horizontally and vertically and in small blocks, misled me into speaking of it in my previous report as "what seemed to be a pavement of rough mosaic-work."

*The mouth of the tunnel is not square. There is a rough arching of the roof.

Between *B* and *A* a noteworthy structure was brought to light. Just in front of and below the slab of conglomerate (about .20 m. thick), which covers the *ὑπόνομος* to the doorway of the wall *B*, was found lying across the *ὑπόνομος* a large block of soft yellowish native stone, which had evidently sunk to the slanting position in which it was found owing to the fact that it had originally been placed with its ends resting directly upon the crumbling rock on either side of the *ὑπόνομος*. From the *taenia* upon the inner face of this block (reckoning from the orchestra), it had evidently been taken from the epistyle of some building. Its dimensions (it appeared to have been broken at the ends) were about 1.19 to 1.25 m. x .37 m. x .39 m.⁸ Below it descended in the direction of the orchestra, occupying the entire breadth of the *ὑπόνομος* (about .69 m.), a flight of five steps of soft stone, their ends supported not by the native rock, which is here too soft to admit of such construction, but by a neatly laid facing of stone blocks, which sheathe the sides of the *ὑπόνομος* from this point on through the soft rock and the subsequent white clay of the orchestra. The two uppermost steps (leaving out of account the displaced block previously described, which from its position was evidently the original top step of the flight) are cut out of a single block, which exhibits at the upper edge of its inner face the *taenia* and two *regulæ* and a half of a Doric epistyle. Measured from without, the height of the steps of this stairway varies from about .162 m. to about .295 m., and their horizontal depth from about .25 m. to about .295 m. The form of the steps appears in reverse from the under side of the stairway, as in the case of wooden steps. Between the under surface of the lowest step-block and the bottom of the *ὑπόνομος*, which is here floored with slabs of stone, a clear space about .53 m. in height intervenes, sufficient to allow the passage of a considerable quantity of water. The flooring just mentioned begins at a point about .25 m. back (from the orchestra) of a plummet dropped from the inner face of the architrave-block in which are cut the two upper steps as above described. Directly

⁸ It was dislodged from its position to facilitate excavation and now lies within the *ὑπόνομος*, a short distance back of the stairway.

below the outer face (*i. e.*, the face toward the orchestra) of the middle block of the marble subbase of *A*⁴ the appearance of the flooring of the *ὑπόνομος*, changes. From this point for a considerable distance, apparently as far as the central tank, to be described below, the flooring consists of slabs of stone, slightly hollowed and coated with cement, evidently to facilitate the passage of water. The *ὑπόνομος*, the stone facings of which have fallen in somewhat in the orchestra forward of the marble subbase, was not completely excavated between *A* and *KK*; but in the line of the latter structure it was cleared to the bottom, showing the stone flooring there at a depth, in the deepest part of its hollow, of about 1.85 m. from the level of the top of the stone side-facings. These are here in good repair, and the rough double line of *KK* in its present condition slightly overlaps them at their upper exterior edge on either side of the *ὑπόνομος*. As the stones of which *KK* is built are set in the soil of the orchestra much deeper than the top of the *ὑπόνομος*, there is evidently no original structural connection between *KK* and the *ὑπόνομος*, a point of some importance. In regard to *KK* I have nothing further to add to the conjecture expressed in Note 9 of the "General Report," which, so far as I can judge, is entirely correct. It may be added here that the most carefully constructed portion of the facing of the *ὑπόνομος* is found directly below the slab which supports the marble subbase of *A*. It may be described as follows: Two facing-stones, almost exactly corresponding in relative position to two others on the other side of the *ὑπόνομος*, fill the space from top to bottom. The height of the upper stones is 1.065 m. (north side) and 1.055 m. (south side), of the lower about .78 m. (north side) and .805 (south side); while the length of the upper is .795 (north side) and .805 m. (south side), and that of the lower about 1.10 m. (north side) and 1.09 m. (south side). No cement appears in the joints. The surface of the stone is dressed even, but not smoothed. In the *ὑπόνομος*, between *A* and *KK* were found, besides fallen blocks from the facing, a large block, which from its shape and dimensions appeared to

⁴This block in spanning the *ὑπόνομος* is supported by a slab of conglomerate about .24 m. in thickness and about .76 m. in horizontal depth. This is overlapped in front about .21 m. by the superincumbent marble.

have been taken from the *ἀναλίμπατα*, although I was not able to make sure of its original position; a mutilated Ionic capital of soft native stone; and a beautiful fragment of a marble Ionic capital, a volute with calyx-moulding behind. The few copper coins found in this part of the *ὑπόνομος* were too much corroded to be identified, although one, found near the rear end of the main *ὑπόνομος*, was unmistakably Sicyonian.⁵ One or two small common terracotta lamps were found under the bottom of the stairway. The *ὑπόνομος* enlarges at the centre of the orchestra⁶ in the form of a tank,⁷ about 1.30 m. square and apparently of the same depth. It seems not to have been floored with stone but with the native white clay. A portion of the shaft of a Doric column (1.26 m. in height), standing at the southwest corner, seems to have served to support the stone cover, which was badly broken, but, so far as could be ascertained, originally closed the tank completely. Immediately under this cover were found fifty or more small rough terracotta lamps, some of which had evidently been used, and a number of thin lustreless terracotta bowls, several of which contained lamps. How and when this closely packed mass of lamps and bowls came to be deposited here (evidently after the tank had been filled with earth) is a problem of which I can offer no solution. Upon what appeared to be the bottom⁸ of the tank lay a block of soft native stone, showing upon its upper surface (as it lay) two triglyphs, and having an irregular square hollowed in the middle of the undecorated metope. At each inner angle (toward the stage-structure) the tank is met by a shallow superficial gutter (inaccurately indicated but not lettered on the earlier PLAN), constructed of grooved blocks of stone coated with cement. These gutters run from a structure on each side of the orchestra consisting of a large block of stone laid in cement, immediately beyond and nearly

⁵ I managed to make out 2 I and the well-known emblem of the dove.

⁶ Dr. Young's more accurate measurements are as follows:

Breadth : west end, 1.315 m.; centre, 1.30 m.; east end, 1.285 m.

Length : north side, 1.30 m.; south side, 1.425 m.

⁷ The *ὑπόνομος* is about .62 m. broad at top .785 m. at bottom, where it meets the tank.

⁸ That it was not the original bottom was subsequently ascertained.

continuous with the extremities of the semicircular conduit which runs below the seats of the cavea.

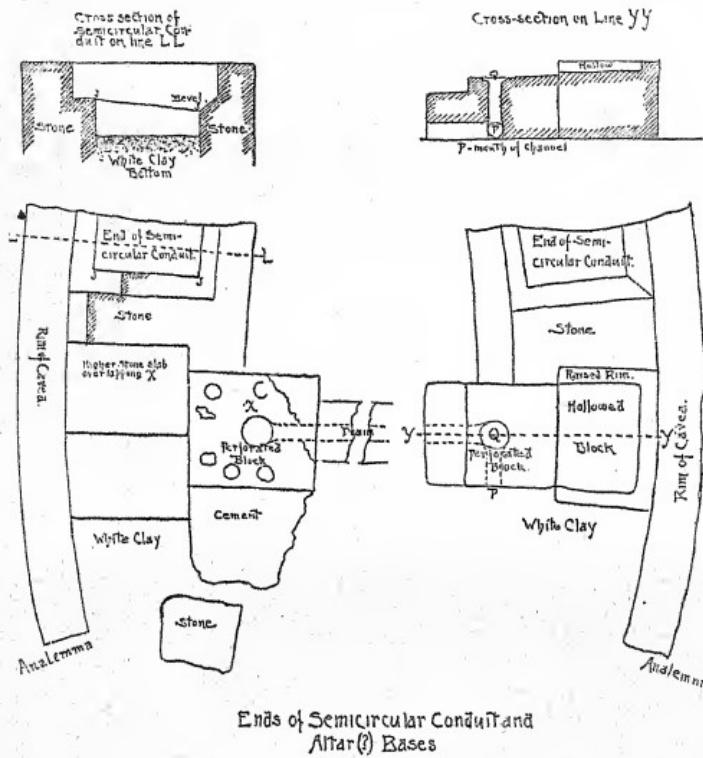


FIG. 14.

One of the large stones is badly indicated in the earlier PLAN at *X*. The gutter stops within about .39 m. of it.⁹ The block itself is cut in the form of a double step, the lower portion .88 m. high by .295 m. deep; the upper, .075 m. high at the sides and .065 m. in the middle. The space between it and the lowest row of seats is occupied by another somewhat more elevated block, .89 m. x .73 m. on the surface. This is hollowed to a depth of .10 m., with a rim about

⁹The "drain" marked at this place in the plan, and mentioned in the "General Report" (sub-heading "Orchestra") as a drain of earthen pipe, near the level of the "orchestra," connecting with *KK*, I can make nothing of. No traces of it are now in existence.

.11 m. broad on three sides. The long side, which lies against and somewhat above *X* (Fig. 14), has no rim. The stone *X*, itself, is pierced by a small round hole in the centre. On raising it, it was discovered that on the under side a gutter had been cut from the central aperture to the outer edge (*i. e.*, toward the gutter of the orchestra). This was filled with cement. But another gutter, about .125 m. deep, which had been cut at right angles to the former, leading from the central aperture to the edge lying away from the termination of the semicircular conduit, was open. This stone, the openings and gutters of which, as it lay, could have no possible connection with the semicircular conduit or with the stone gutter of the orchestra (though the gutters in the block were of about the same depth and breadth), is very probably not in its original position. The stone which corresponds to it on the other side of the orchestra is, like it, laid with cement and has above it a large block forming the connection between it and the lower seats, and it is directly connected with the stone gutter of the orchestra by a central boring *Q* (about .18 m. in diameter) and a gutter from this to the edge, directly continued on the first stone of the gutter of the orchestra. The joint is cemented. Four holes are drilled in this block¹⁰ some distance within the four corners, and when first observed were still filled with lead, thus proving that they had served to secure some object, upon the block. It would seem that something originally stood here from which the drip was to be carried off to the central tank of the orchestra by the stone gutter, which, like its mate, emptied into the tank by a shallow V-shaped spout of heavy terra-cotta. Could this something have been a small altar?¹¹ At a distance of .48 m. from the semicircular conduit (between the central tank and this point the *πόνος* has been but partly opened and not cleared of earth), immediately at the left of the large stone marked *J* in the earlier PLAN, the

¹⁰ The dimensions of the block are about .945 m. x .795 m., the lesser dimension toward the orchestra.

¹¹ [The following remark of Donatus in his introduction to Terence may be cited for an altar at each side in the Roman epoch: *In scena duæ aræ poni solebant, dextera Liberi, sinistra ejus dei (Apollinis) cui ludi siebant.* See, however, BERGK, *Gr. Literaturgeschichte*, iii. p. 6, note. A. C. M.]

ὑπόνομος, which is here but .30 m. broad, is met by a gutter cut in a single block of stone and running under the lower of the two courses of stone blocks which form the exterior boundary of the semicircular conduit, thus lying some .65 m. below the level of the rim of the conduit. The opening of this gutter from the inside of the conduit is some .27 m. broad by .16 m. deep. The semicircular conduit is not artificially floored, but is merely hollowed in the hard white clay of the orchestra. Careful excavations at both ends prove conclusively to my mind that it had no connection with the *ὑπόνομος* from these points, but only by the one outlet just described. Although the *ὑπόνομος*, as indicated above, was not entirely excavated, I am of the opinion that what has been done furnishes sufficient data for an estimate of its general character and use.¹²

MORTIMER LAMSON EARLE.

BARNARD COLLEGE, NEW YORK,
October 18, 1891.

¹²[N. B. Some slight changes have been made in the measurements as they appeared in my original notes; for this again I am indebted to the accuracy of Dr. Young.]

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
STUDIES AT ATHENS.

FURTHER EXCAVATIONS AT THE THEATRE OF
SICYON IN 1891.

[PLATE XIII.]

The present report includes the results of a fourth season of excavation at the theatre of Sicyon. The stage-structure, orchestra, and lower rows of the cavea had been cleared in the years 1886 and 1887, under the direction of Professors D'Ooge and Merriam.¹ At that time a subterranean passage, following the central line of the theatre through orchestra and stage-structure, had been discovered but not completely explored. During last summer (July-August, 1891) Mr. Earle² resumed the work which he had superintended four years before. The object sought was to determine the meaning and purpose of this passage in the light of a similar discovery just made in the theatre of Eretria.³ Adverse circumstances prevented the full completion of Mr. Earle's undertaking. We succeeded to the task in December, by previous appointment meeting Dr. Waldstein at Basiliko on the day of his arrival in Greece (December 22). Operations at the theatre commenced the next morning, under Dr. Waldstein's direction, and continued after his departure until December 30.

When our work began, the so-called *ὑπόνομος* was not yet fully cleared in the space between wall *A*⁴ and the central tank, as well as between this tank and the middle point of the semicircular conduit of the orchestra. Further to the west, about under wall *B*, the mouth of a rock-cut tunnel,⁵ was visible, evidently a prolongation and outlet of the *ὑπόνομος*. A short distance west of *B* a shaft had been sunk in the line of this tunnel to discover, if possible, its course and meaning.

¹ Cf. *Am. Journal of Archaeology*, v. pp. 267 ff and 286 ff; and *Papers of the Am. School at Athens*, v.

² See preceding paper.

³ Cf. *Am. Journal of Archaeology*, vii. No. 3, pp. 43 ff.

⁴ References are to Fig. 18 above, p. 389; also to the PLAN in *Am. Jour. of Arch.*, v., plate ix, and *Papers of the Am. School at Athens*, v. p. 6.

⁵ See above, p. 388.

No such indications as were desired had been found, though the shaft had reached a depth below the surface equal to that of the tunnel's roof. The ill success of this attempt was due to reasons which could not have been foreseen, but will appear later. At all these points, therefore, we sought to complete what had been left unfinished.

Our first step was to continue the removal of the covering-stones of the *ὑπόνομος* from orchestra conduit to central tank; for here the passage was too shallow and narrow to allow digging from beneath. Only one stone was left *in situ*, and throughout the extent described the accumulated earth was cleared away down to virgin soil. Nothing was discovered in the course of the work except two small Roman lamps. In the tank itself, which had been excavated to a depth of about 1.25 m. we found the original hard soil which had been its only flooring about .50 m. deeper. Here also nothing of more importance than fragments of pottery came to light. Between *KK* and *AA* the facing of the *ὑπόνομος* on its north side had fallen away, and it was necessary to break up and remove the stones which thus choked its course. This done, the pavement was soon laid bare and the *ὑπόνομος* fully cleared from *A* to the orchestra conduit. In the rock-cut portion beneath the stage-structure we endeavored to determine as surely as possible the original bed of the *ὑπόνομος*. A few fragments of pottery and a small portion of the marble base of a column were found, which were valuable as proving that we must go still deeper. No stone paving was discovered, but hard clay almost as impermeable. Finally, we penetrated still further into the tunnel above mentioned. The shaft east of *E* was sunk to such a depth that the workmen here, digging toward *E*, soon met those who had begun at the opposite extremity of the tunnel under the stage-structure. It was found that in this subterranean portion the *ὑπόνομος* bent away so far to the south that the shaft was quite out of the line of its course.

To sum up more in detail the points which have seemed worthy of note.⁶ The semicircular conduit is directly con-

⁶ We repeat in a few cases data already published. This has been done only where it seemed necessary for the sake of completeness, or where more thorough excavation has made more exact measurements possible.

nected with the *ὑπόνομος* by means of a gutter, which runs under the bounding curb of the conduit. This gutter is constructed by hollowing out the upper surface of a single stone which forms part of the foundation of the curb, projecting beyond it .45 m. to the east, and lying .71 m. below its upper rim. The length of the outlet so formed is 1.11 m., its breadth at the western extremity (within the orchestra conduit).29 m., at the eastern extremity .315 m., its depth .16 m. At about the point where it is bridged by the superincumbent courses of the orchestra-curb the gutter widens out into a sort of basin, whose breadth, measured along the inner (eastern) edge of the stone which spans it, is .375 m. This basin is .415 m. distant from the eastern extremity of the gutter-stone. From this eastern extremity down to virgin soil in the *ὑπόνομος* proper is a fall of about .235 m. At this initial point the *ὑπόνομος* is .245 m. wide and well faced on each side with quadrangular blocks, their upper surface continuing approximately at a level with the upper surface of the gutter-stone. In its course toward the central tank the *ὑπόνομος* becomes gradually wider and deeper. At a distance of 3 m. from the gutter-stone its breadth is .29 m., 2.63 m. further on the breadth has increased to .36 m. Throughout this extent of 5.63 m. the side-facing is regular and well constructed. It consists of a single course of stones, fitted together without mortar, which vary in height with the increasing depth of the *ὑπόνομος*, the one next the gutter-stone measuring .475 m., the one further to the east .69 m. At the above mentioned distance of 5.63 m. from the conduit-curb the character of the side-facing changes entirely. Through a further extent of 2.62 m. the bounding-walls, instead of being straight and vertical as before, are very ill made and irregular, consisting for the most part of small stones very carelessly fitted together. On the south side for a space of 1.18 m., measured from the eastern end of the better wall, no facing-stones of any kind were found. At the eastern end of this whole extent of rough facing the width of the *ὑπόνομος* amounts to about .66 m. Its actual bed was much narrower and definitely marked in a very interesting way. A hard stratum of white clay about .035 m. in thickness, resting upon thinner strata no less dense, was found to

extend from the western end of the facing of small stones to the central tank, sinking gradually from a depth of about .60 m. below the orchestra surface at the former point to a depth of 1.07 m. below the lower side of the tank's cap-stone. It is this stratum which makes a foundation for the side walls. Only in the central line of the *ὑπόνομος* a channel, varying in width between .30 m. and .36 m., had been cut through to a depth of from .25 m. to .30 m. On either side of this channel, occupying the remaining width of the *ὑπόνομος*, the clay edge appears in its original undisturbed state. Perhaps it was because this clay is so impermeable that close confining side walls were not thought necessary; at least it is noteworthy that such walls do not exist in just this portion of the length of the *ὑπόνομος*.

At the eastern extremity of the rough facing (at a point .83 m. from the central tank), the bounding walls are immediately continued by two large oblong blocks, one on each side, set obliquely so as to open out in fan shape into the central tank. Thus the *ὑπόνομος* at its entrance to the tank becomes almost as wide—.965 m.—as the basin itself. The mode of construction is here rather careless, in that the corners of the entrance-stones are not worked away but left projecting beyond the western facing of the tank. The bed of the *ὑπόνομος* falls very rapidly just before reaching the tank. This central basin is irregularly oblong in shape, 1.75 m. in depth and well faced in the same manner as the continuation of the *ὑπόνομος* toward A. Its interior measurements are as follows: length (east to west) along south wall 1.425 m., along north wall, 1.30 m.; breadth at western end 1.315 m., at eastern end, 1.285 m.; midway between, 1.30 m. As has been said, virgin soil in the tank was found about .50 m. below the level reached in the previous excavation. Therefore the column-drum which stands in the southwest corner, and was previously supposed to mark the tank's original depth, must have fallen or been placed in its present position when the basin was already partly filled with accumulated earth. It could have had no structural connection with the *ὑπόνομος*; in fact its appearance and its unfinished condition show that wherever used it could have served only as ordinary building material. A few of the channels are

fully worked out, others indicated, the rest of the circumference quite rough and marked with various irregular holes, doubtless for clamping or some kindred purpose.

In the space between the central tank and the wall *A* the *ἰπόρομος* maintains an almost uniform breadth and depth, while the side walls are of far better construction than in the part already described. They consist only of squared stones set for the most part in three regular courses. Here also the passage is well paved with slightly concave blocks, the channel thus formed being coated throughout with cement. This concave flooring extends from the tank to a point almost exactly beneath the west edge of wall *A*, and 1.14 m. west of a plummet dropped from the lowest of the steps between *A* and *B*. From this point for a distance of 2.75 m., that is to a point .25 m. east of a plummet dropped from the highest step, there is no pavement but the natural rock. Further under the stage-structure the *ἰπόρομος* sinks through and below the ledge, so that its bed is here only the soil itself. For a distance of 4.80 m. eastward from the central tank, the side-walls are in perfect condition. Then follows a space of 2.45 m. where the north wall is broken away down to the lowest course. At 3.35 m. further on, that is at a point just east of the steps, the artificial facing ends, and for the rest of its course the *ἰπόρομος* is bounded only by natural walls of rock or earth. Its breadth is constant, as has been said, between the central tank and wall *A*, but everywhere decreases gradually from bottom to top, a result probably due to pressure of the earth from without. Thus close by the tank the breadth varies from .785 m. to .62 m., under wall *A* from .785 m. to .665 m.

The often mentioned steps are situated between walls *A* and *B*, and lead downward into the *ἰπόρομος* in the direction toward orchestra and cavea. Between the lowest step and the pavement of the *ἰπόρομος* there is a clear space of .57 m.; that is, the steps are supported at either end by the side walls into which they are built. It seemed quite certain, however, that the steps were a later addition. The whole structure of the side walls here showed a loose patching together of irregularly shaped stones instead of the usual careful building with rectangular blocks, a result which could most naturally

be ascribed to a later rebuilding. Two more facts tended to confirm this conclusion. First, the two upper steps (fourth and fifth) are made up of a single architrave-block which could not have been thus re-used in the period of good Greek workmanship. Secondly the three lower steps are covered on the east side with a thin regular coating of cement. A similar coating was also found on the upper surface of the stones that form the two lower steps, wherever protected: that is, beneath the incumbent portions of the next steps and of the stones of the side facing. This cement could not possibly have been first applied to the stones in their present position. Therefore the steps must date from a period at least considerably later than the earliest mortar-built structures, so, *a fortiori*, later than the *ὑπόνομος* itself. The steps vary noticeably in dimensions: in height between .162 m. and .295 m., in tread between .252 m. and .295 m. The architrave which forms the two upper steps is so long (1.424 m.) as to project in both directions beyond the side walls of the *ὑπόνομος*.⁷ Its upper surface makes the fifth step, while the next below is only hewn out very roughly. The face of the architrave and the regulæ bore still a slight coating of stucco.⁸

From the steps straight backward under the stage-structure the *ὑπόνομος* is a rock-cut passage without artificial side-walls, but roofed with stone slabs as before. The width remains nearly constant, on the whole decreasing slightly; the depth increases considerably, both with the actual fall of the channel bed and because the ground on which the stage-structure stands is higher than the orchestra. Between walls *D* and *E*, that is, at a distance of 10.40 m. from the steps, the passage is continued by a tunnel, 1.49 m. high and .56 m. wide at its initial point. The depth has here become so great that the roof of the tunnel is 1.60 m. below the soil. The cutting is only in part through rock. The ledge is thin and slopes toward the surface so considerably as to be quite above the

⁷ Other dimensions are as follows; width, .532 m.; height to tenia, .395 m. total height, 452 m.; length of regulae, .264 m.; distance between regulae, .365 m.; length of guttae, .028 m.; diameter of guttae, .026 m.

⁸ Upon the surface of the stucco were to be seen traces of what may possibly have been red paint.

tunnel, at a distance from its mouth of 1.42 m. About 1.58 m. further on the tunnel bends away at a considerable angle toward the south; that is, toward the lower plateau on which the town lay. It runs now though a soft clay soil, and is just high enough to admit of easy passage. This change in direction seemed to us to confirm fully Mr. Earle's conjecture^{*} as to the ultimate course of the *ἰπόρομος*, and we deemed it both unnecessary and impracticable to follow the tunnel further. So far as we went we had been guided first by the constant discovery of broken pottery, and secondly by the fact that the earth which had washed in to fill the tunnel was of an entirely different character from the original soil.

The purpose of this subterranean passage, leading as described from the circular conduit through and beyond the stage-structure, was made more sure by a series of levels taken at various points in its course. These showed a gradual and continuous descent, amounting in the space between the conduit and the central tank to .84 m.; between the central tank and wall *A*, that is, the paved portion of the passage, to .135 m.; between walls *A* and *D* to .609 m. There seemed no doubt therefore that the *ἱπόρομος* had served as an outlet for the circular conduit. It is true that the bed-clay of the conduit at its middle point lies at present below the connecting gutter-stone. But the conduit had been in great part excavated before our work began, and it appeared probable that the additional soil which we removed was really native soil disintegrated by the rains to which it was laid bare. Even if this difficulty were not so easily solved, the discovery here of such a gutter-stone could admit of but one interpretation, namely that the conduit had emptied at this point into the *ἱπόρομος*. By way of further confirmation, it was found that the conduit's rim was here .185 m. lower than at either northern or southern extremity. Doubtless the bed of the conduit sloped in the same way, so that water would run toward the middle instead of toward either end.

If this is true, the *ἱπόρομος* must be as old as the theatre itself, and at that earliest period must have served as a drain. But several facts of construction tend to show that this was

* See above, p. 390.

not its only office. First, the existence of a central "tank," as it has been called, following former phraseology. We find a difficulty in explaining why such a tank or basin should be situated at just this point in the course of a simple drain.¹⁰ Secondly, the steps between walls *A* and *B*, which, it must be noted, lead us from the *ὑπόνομος* to the interior of the stage-structure. All becomes clearer if we assume that here as at Eretria¹¹ there was a concealed passageway between the stage-structure and the centre of the orchestra. Furthermore, in just this space between centre and steps, and here only, the *ὑπόνομος* is well revetted and paved. This peculiarity also is explained by the supposition just made. The steps, as we have said, were probably a later addition, but the time of their building is not necessarily the time when the *ὑπόνομος* was first used by actors. Wooden steps may well have been used here until replaced by a permanent structure. We assume that the central tank also was furnished with steps. The fact that none were discovered would indicate that these were always of wood and not of stone. The one uncertain point is whether the side-walls and paving between the central tank and wall *A* belong to the same period with cavea and stage-structure. This is a matter of technical criticism. To us there seemed no distinct evidence of a difference in time. But whenever this portion of the *ὑπόνομος* was so faced and so paved, it was for the purpose only of making it a con-

¹⁰ Mr. Earle desires the insertion of the following note as an expression of his opinion as to the purpose of the *ὑπόνομος*: "Besides the water from the semi-circular conduit, the tank at the centre of the orchestra received the drip from what would seem to have been two altars, one on either side of the orchestra. Though the levels of the theatre have not been fully taken, I believe that this tank was also intended to receive the surface drainage from the orchestra and parodi, after the manner of the drain of a modern stone court; for the rainfall at Sicyon is at times sharp, and the hard clay absorbs water with extreme slowness, if at all, so that there would have been in the orchestra, from time to time, a considerable accumulation of water, which could hardly escape in any other way than that suggested. When it is urged that for the mere passage of water the *ὑπόνομος* is unnecessarily large, it seems to me that it is forgotten that the largest portion of the passage is under the stage-structure, where it was covered entirely with slabs and could hardly have served any other purpose than that of a drain. It was obviously much easier to cut down through a crust of soft rock than to tunnel it. No tunnelling was done until the *ὑπόνομος* had reached an upward slope in the rock formation."

M. L. EARLE.

¹¹ *Am. Jour. of Arch.*, vii. pp. 275. ff.

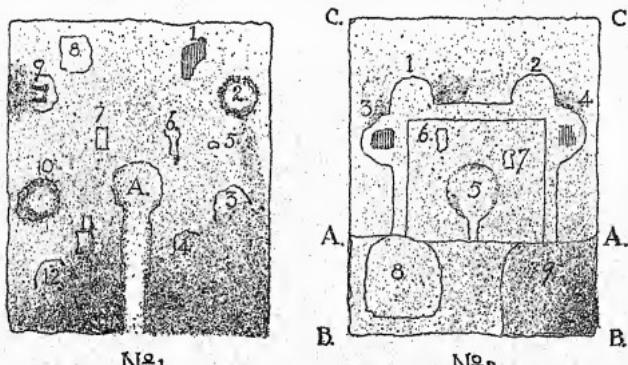
venient means of communication between stage-structure and orchestra.

We have next to consider the two shallow, superficial gutters that meet the tank at its two eastern corners. They are composed of grooved blocks of stone, and have the bottom of the groove coated with cement to facilitate the passage of water. The individual blocks have been so greatly displaced by earthquakes or by other causes (compare PLATE XIII), that in considering the question of their original inclination we must not place too much dependence upon their present levels. In the southern gutter levels were taken at four points, respectively 1.70 m., 3.70 m., 5.60 m. and 8.50 m. from the tank, which we shall designate by the letters *e*, *f*, *g*, and *h*. At *e* the gutter was .028 m. higher than at the tank; at *f*, .092 m.; at *g*, .088 m. and at *h*, the end of the gutter, .125 m. In this case, therefore, the steady descent from the side of the orchestra to the tank is interrupted only in the portion between *h* and *f*. In the case of the northern gutter the results are less satisfactory. The various sections have been more disturbed, and a portion of the gutter at the side of the orchestra has entirely disappeared. Levels were taken at three points, respectively 2 m., 3.75 m. and 7.50 m., from the tank, which we shall designate as *c*, *b*, and *a*. At *c* the gutter is .041 m. higher than at the tank; at *b*, .066 m.; but at *a*, the present northern extremity, it is only .016 m. higher. This last figure, however, is probably to be explained by the displaced condition of the blocks already mentioned. If, moreover, we compare the first two levels with those taken in the southern gutter, the conclusion must be that on this side also there was a steady descent from the side of the orchestra to the tank.

The two structures at the sides of the orchestra from which these gutters lead have next to be described. The one on the south side is composed of three stones. The first, about .80 m. broad by .94 m. long, is separated from the passage in front of the lowest row of seats by the two others, which are of about the same length but have a breadth of about .64 m. only. Of the latter the eastern one, which was moved from its position, was found to have two *tæniae* cut on the side that had lain nearest the seats. Of these the one along the edge

was about .14 m. broad, and the other about .12 m. The first stone has a central boring, that passes entirely through the stone, and a gutter from this to the edge that directly continues the stone gutter of the orchestra. About this central boring are worked six large holes and several small ones, of which some are still filled with lead. The exact position and dimensions of these holes can be ascertained from the following table and illustration (Fig. 15, No. 1).

- A. .42 m. from south edge of stone. Original breadth apparently about .13 m.
 The gutter from A to the edge is about .09 m. wide at the bottom. Its upper edges are badly worn away.
1. About .20 m. from west edge of stone, and about .04 m. from south edge. Entirely filled with lead.
 2. About .145 m. from east edge, and about .04 m. from the south. Present diameter about .11 m. and depth about .105 m.
 2. About .04 m. from the west edge, and .17 m. from the south. Present diameter about .11 m. and depth about .105 m.
 - 2 and 8 are both larger at the top than at the bottom. The edges of both appear to be broken away.
 9. Contains some lead. On the east the stone is broken away from the hole to the edge, but from its appearance the hole originally corresponded to 2 in size.
 6. About .285 m. from the west edge and about .32 m. from the south. Depth about .08 m.
 7. About .23 m. from the east edge and about .325 m. from the south edge. Depth about .06 m.
 10. About .04 m. from the east edge and .49 m. from the south. Depth about .092 m. Edges worn away. Smaller at the bottom than at the surface.
 3. Contains a mass of lead. The northwest corner of the stone is so badly broken away that the dimensions of the hole cannot be made out.
 11. About .21 m. from the east edge and about .65 m. from the south. Apparently it was originally rectangular.
 4. Apparently corresponded to 11, but owing to the condition of the stone no measurements could be taken.
 12. Apparently a circular cavity. Depth at the south side about .075 m.



STONE BROKEN AND WORN
 LEAD
 SCALE, .05 = 1". FIG. 15.

STONE BROKEN AND WORN,
 LEAD
 SCALE, .05 = 1".

At the northern side the structure is composed of two stones, and is described in Mr. Earle's report. In view, however, of certain new facts that were discovered, some further description must be given of the larger block which was raised by Mr. Earle. This stone (Fig. 15, No. 2) is .965 m. long by .77 m. broad, and was found standing on edge (the edge *B B* on the ground) in the position in which Mr. Earle left it. A portion of the upper surface, between *A A* and *B B*, .295 m. broad, is worked away .07 m. lower than the rest of the stone. On the left side of this strip, as one faces the stone, there is a shallow cavity (8) about .05 m. deep, with a rim about .055 m. broad. To the right is a similar cavity (9), but the rim has been entirely worn or broken away. The ledge between the two cavities is about .23 m. broad. On the higher and larger portion of the stone is a rectangular space surrounded by a shallow channel that is enlarged at either upper corner in the form of two semicircular cavities. Within this rectangle there are two small holes and a circular boring that runs entirely through the stone and from which a shallow channel about .045 m. wide, runs to the edge *AA*. The position of the various holes, their size, and condition will be seen from the plan (Fig. 15, No. 2) and the following table.

1. Upper edge about .18 m. from the top of the stone. Breadth at bottom apparently about .12 m., but the right edge is broken away. Depth about .085 m. In the centre is a smaller and deeper cavity.

2. About .165 m. from the top of the stone. Original breadth at the bottom apparently about .18 m., but the stone is broken to the right. Depth about .085 m. Near the centre, as in 1, is a smaller and deeper cavity. Distance between 1 and 2 about .23 m. Channel between 1 and 2 is .025 m. deep and about .04 m. broad.

3. About .04 m. from left edge of stone. Breadth, about .11 m. It contains a mass of lead, .045 m. by .085 m.

4. Corresponds in its dimensions to 3. It likewise contains a mass of lead.

Holes 3 and 4, and the entire channel, were almost filled with cement. Some cement was also found in holes 1 and 2.

6. About .275 m. from left edge of stone and immediately below the horizontal channel. Its dimensions are about .06 m. by .08 m. but the edges are broken away. Depth about .085 m. Filled with cement.

7. About .265 m. from right edge of stone and about .10 m. from the horizontal channel. Its dimensions are about .065 m. by .08 m. Depth about .09 m. Filled with cement.

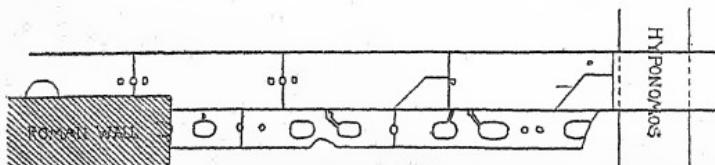
5. About .44 m. from top of stone and .30 m. from right and left edges. Original diameter about .18 m. but the edge, especially to the right, is badly broken.

The two gutters on the under side, mentioned by Mr. Earle, run from the central boring to the right edge, as you face the stone, and to the bottom edge *B B*. Imbedded in the cement with which the latter is filled is a lead pipe, choked with a deposit of earth. This pipe, then, must have served as

the connection between the central boring and the orchestra-gutter after the groove had been closed with cement.

Whether these two structures supported small altars, as Mr. Earle suggested, or served some other purpose, it seems impossible to decide in their present state.

In addition to this work in connection with the *ὑπόνομος* one other task was undertaken. The wall *A A*¹² consisted of a wall of earth, stone, bits of tile, etc., from beneath which there projected toward the orchestra a marble surbase. For 4.32 m. to the south of the *ὑπόνομος* the upper portion of the wall was removed and disclosed a row of stone blocks behind the marble ones (comp. Fig. 16 and PL. XIII. No. 2). In these stones, which have an average width of .44 m. is worked a series of large and small holes regularly arranged. We find



SECTION OF WALL A:A
SOUTH OF HYPERONOMOS.

FIG. 16.

two large holes quite near each other, then a broad space in which are two smaller holes, then two of the larger size near each other, and so on. Though the general arrangement is thus regular, the holes themselves and the spaces between them vary considerably. The broader spaces between the large holes vary from .56 m. to .75 m. and the narrower from .20 m. to .26 m. The small holes differ so greatly in form and dimensions that no general statement can be made as respects them. The larger holes are for the most part rectangular in shape, and vary between .23 m. and .35 m. in length and from .13 m. to .18 m. in breadth. From some of these holes a shallow channel runs to the edge of the stone that rests against the marble surbase, and there ends in a small¹³

¹² Compare PLAN, *Am. Jour. of Arch.*, v. plate ix. and *Papers of the Am. School at Athens*, v.

rectangular hole. Some of these channels and holes still contain lead.

The same series of holes was found to be continued in the remaining blocks that were exposed ; namely, those in the two doorways and the one just north of the *ὑπόρομπος*. They seem to remove all doubt as to the original superstructure. These holes must have been made to receive the pillars of wood or of stone which originally served to support the superincumbent portion of the stage-structure.¹³

In connection with this subject it may be well to describe more in detail than was done in the original report the separate blocks of the marble subbase. They are by no means uniform in length, but vary between 1.413 m. and 1.685 m. The first and second stones to the south of the *ὑπόρομπος* have the further left-hand corner, as one stands before them facing the stage, cut away in the shape of a trapezoid. That this served no purpose in their present position is shown by the fact that the spaces thus formed are carefully filled with blocks of reddish sandstone coated with a white cement. The third stone has both edges worn away and has apparently at some time served as the threshold of a door. In the top of the fourth stone, which is still partly covered by the wall of earth and small stones, there exists a shallow circular cavity, apparently made to receive a column. The fifth stone to the south of the *ὑπόρομπος* and the first, second, and fourth to the north have the further right-hand corner cut off in an oblique line. In the fifth and sixth stones to the north, the further left-hand corner has been similarly cut away. At the left end of the third stone to the north, the letter *E* is lightly incised on the upper surface. The letter is not parallel with the edge of the stone, but is set at a slight angle. Though these facts are not sufficient to determine the original use of the blocks, they prove that the stones are not now in their original position.

CARLETON L. BROWNSON,
CLARENCE H. YOUNG.

¹³ Dr. Dörpfeld presumably referred to these holes and anticipated this report in his announcement that he had identified at Sicyon the substructure of a wooden proscenium, *Mith. Athen.*, 1892, p. 288.

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
STUDIES AT ATHENS.

REPORTS ON EXCAVATIONS AT SPARTA IN 1893.

In the reports on the excavations of the American School of Classical Studies at Athens in 1892 to the President of the Archaeological Institute of America,¹ as well as to the Chairman of the Managing Committee of the School,² mention was made of the excavations at Sparta in the spring of that year. The chief definite result of these excavations was the apparent discovery of the "circular building" spoken of by Pausanias³ as being close to the *Skias*.

Before the work of excavating was begun the site presented the appearance of a round mound of earth about forty-four metres in diameter at the base, lying on the gentle slope of a ridge with the summit of which the upper surface of the mound was continuous at the northwest. The sides of the mound rise steeply, and the summit, though nearly level, has a slight slope from northwest to southeast. The surface of the mound is highest above the slope of the ridge at its southern side (about six metres).

The excavations conducted last year revealed the existence of a large wall of Hellenic construction following the line of the circumference of the mound for some distance in an easterly direction from the point marked *Z* on Fig. 17. At the easternmost point of this line there were evident traces of repair in a subsequent period of the history of this building; while a few feet to the southeast of the wall, at this point, there were Roman remains of a brick structure in fair preservation. On the upper surface of the mound last year's work also brought to light a large basis for a statue, or group

¹ Thirteenth Annual Report, p. 66, seq.

² Eleventh Annual Report of the Managing Committee, Director's Report, p. 31.

³ 3. xii. 9. πρὸς δὲ τὴν Σκιάδι οἰκοδόμημά ἔστι περιφερές, ἐν δὲ αὐτῇ Διδυ καὶ Ἀφρόδιτης ἀγάλματα ἐπίκλησιν Ὄλυμπιων· τούτῳ Ἐπιμειόδην κατασκευάσαι λέγονται, οὐχ διολογοῦντες τὰ ἐξ αὐτῶν Ἀργεῖοις, ὅπου μηδὲ πολεμῆσαι φασὶ πρὸς Κνωσίον.

of statues, and in close proximity to this, the thumb of a marble colossal statue, probably holding a scepter. From the workmanship of this thumb the statue does not appear to have been of early date; it probably belonged to the Roman or the Hellenistic age.

I Plan of the Roared Building at Sparta
excavated 1892-1893.

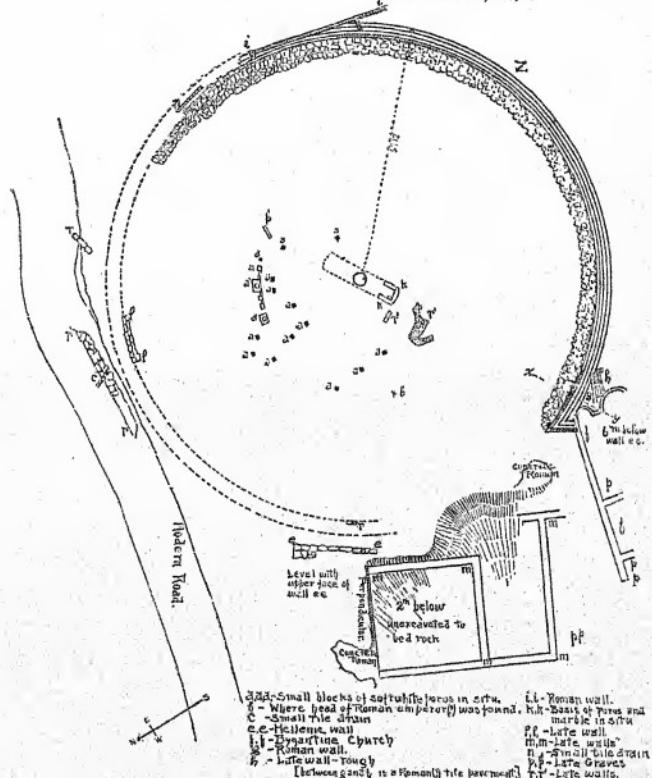


FIG. 17.

On April 15 Professor Waldstein and Mr. Meader began work, which was carried on without interruption until April 25. After the beginning was made the work was left in the

hands of Mr. Meader, who was assisted during the last day in taking photographs and making measurements by Mr. Richard Norton. The account of the work here given is from Mr. Meader's notes:

* Work was begun by sinking a curved trench westward from Z , where it was hoped the continuation of the wall would be found. The first day's excavation, however, resulted only in the discovery of a Byzantine church as indicated on Fig. 17, a number of late graves (marked $p\ p\ p$), which contained only the skeletons of the buried, and at $m\ m\ m$ several late walls built with larger or smaller worked and unworked stones and brick set in mortar. Two men were also set at work on the east side of the mound to follow still further the wall there found. On the following day the western trench was widened toward the centre of the mound and the circular wall was again brought to light. On this and the following days the wall was followed to its termination near the Byzantine church, where it was found to be joined at an acute angle by a second piece of curved wall of similar construction, and as closely as can be determined from the small arc preserved, of the same radius. The eastern end of the wall was also found to extend several metres beyond the point to which it was uncovered last year.

The diameter of the circle upon which the wall was built was next measured and its centre determined. The radius of the circle of the outermost (lowest) part of the wall was found to be 21.65 m., and with this radius the line of the still unexcavated part of the circle was laid out. All of this arc of the circle (nearly 180°) lies high upon the top of the mound. A trench dug along this arc resulted in the discovery of no part of the original structure. At ll was found a late wall lying exactly upon the line which the old wall must have followed if it existed here, and slightly curved. The bricks and mortar employed in the construction of this wall show that it is not part of the original structure. The digging of trenches outside this line brought to light only late walls. At g , and ii , are two walls, apparently Roman, built in the characteristic Roman manner, with two faces of triangular bricks and a filling of concrete. At rr were found much later walls built of stones of irregular shapes and

various sizes, bricks and pieces of marble all set in mortar. None of the marble was found to contain sculptural remains or inscriptions on the exposed faces. At *c* and *m* two small tile-drains were found (diameter about 10 cm.). The tiles are of coarse clay and are joined with mortar.

The depth of soil with which the circular wall was covered varied in different places. It was least at the south, where it scarcely exceeded a metre, and greatest at the east, where the lower part of the wall is about $3\frac{1}{2}$ metres below the surface.

The work of clearing the surface of the mound had meanwhile been begun, and was finished on April 24. The highest point of the upper surface of the mound lies, as stated above, at the northwest, just back of the wall *e e*, where there is a small plateau about 7 m. square. Here the surface-soil is very thin and the bed-rock (a fairly hard, yellowish porous stone) is exposed in places. From this point the surface of the mound sinks slowly toward the southeast and the bed-rock dips a little more rapidly in the same direction, thus sinking gradually deeper below the surface. Toward the south the rock passes into a soft yellow sandstone. Every point of the surface of the rock was at one time or another exposed to view and examined. To save the expense of conveying the soil to a distance by carts, that from the newer diggings was continually thrown backward upon the part already excavated and mapped, and the whole surface was in this manner recovered.

The surface of the rock was found to be weathered into irregular cavities. Near the centre, however, an area had been artificially levelled and smoothed for the reception of the basis discovered last year, and probably for a pavement about it. Exactly at the centre of the arc of the large circular wall a round well-like cavity, one metre in diameter and about half a metre deep, with perpendicular sides, was cut in the rock. In the bottom of this was a second hole about .40 m. in diameter and .50 m. deep. Accurate measurements are not possible.

On the upper surface of the rock was found (besides the basis discovered last year) a number of blocks of soft porous stone *in situ*. The porous stone is of a finer quality than that of

the bed-rock, being nearly white (slightly creamy in tint) and very soft. It can be cut with a dull knife and scratched with the finger nail. In most cases the bed-rock has been cut to fit these porous blocks. At *e e* was found, only a few inches below the surface, a wall, 7 m. long, of excellent Hellenic construction, consisting of rectangular blocks of hard limestone, varying slightly in length and breadth and carefully fitted without the use of clamps or mortar. A small depression in the rock at the eastern end is filled with a bit of polygonally fitted pavement, the upper surface of which is continuous with that part of the wall. The breadth of the wall varies from .40 m. to .60 m. At *r', r'* were found two pieces of Byzantine or Turkish wall, and at *f'* a late grave.

The large circular wall is essentially a retaining-wall. Its main strength is afforded by a heavy wall of unworked stones piled upon one another and fitted together without the use of clamps or mortar. Its thickness varies from .80 m. to one metre. The mode of construction is indicated in the section, Fig. 18. This rough wall was originally masked with a facing of breccia, which has been entirely destroyed in its upper part. Enough remains of the lower courses to give a fair idea of what it originally was. It consisted of the usual Greek basement of three steps, upon which rested a vertical wall of about .40 m. in thickness and of unknown height. The wall is best preserved near the eastern end, where (through *x y*) the section (Fig. 18) is taken. There are here preserved three courses of the wall. The lowest is a range of *orthostatai*, or stones set on edge, .40 m. in thickness and 1.30 m. in height (about 4 Greek feet). Their length varies from 1.50 to 3 metres. Upon these lies a band of unpolished red marble .30 m. high and .70 m. broad, having cut upon its upper face a broad, shallow channel to form a bed for the next course of stones above. This consists again of *orthostatai*, here .97 m. (3 Greek feet) high and .43 m. thick. Only one of these blocks is still preserved *in situ*. The steps of the basement vary in height and width, as shown in the section. The broadest and highest is that at the bottom and the narrowest and lowest is the uppermost one. The top step has on its upper face a jointing surface, slightly hollowed, for the reception of the *orthostatai*, as is shown in the section. The entire wall is sup-

ported upon a foundation built of rough stones piled upon one another (see section). This foundation is at least a metre in vertical thickness at z , where a trench was dug to examine it. The character of the upper courses of the breccia wall is unknown as none of them are preserved. The original height of the wall can scarcely have been two metres greater than that now preserved, as the upper face of stone f (Fig. 18) is

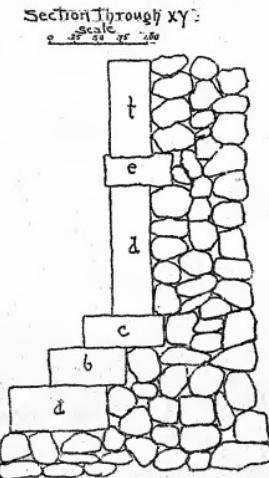


FIG. 18.

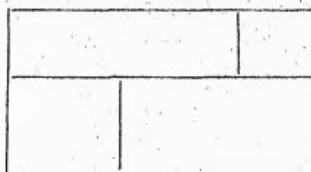
less than two metres below the level of the basis $k k$, above which the original upper surface of the mound cannot have extended.

The rough inner retaining-wall is preserved for a length of about 68 m. measuring along the circuit from the western corner. The height of the preserved part varies from .50 m. to 2 m. above the top step of the basement. The uppermost step of the basement is preserved for a length of 56.65 m., and the lower steps for about the same distance with the exception of a few metres near z , where several blocks have fallen out of position. Of the lower course of *orthostatai* ten blocks are preserved *in situ*, two near the western corner (aggregating 5.90 m. in length) and eight east of the point z .

These are indicated on Fig. 17 by the ruled surfaces. Only two stones of the next (the narrow) course above are preserved, and only one block of the second range of *orthostatai*. These last stones are all at the western corner.

From the point *s* the *orthostatai* have been removed from position and a very roughly built wall of breccia blocks of various sizes built in their place. These blocks are laid upon one another carelessly without fitting or fastening of any kind, and no attempt has been made to give the wall a smooth outer face; it is such a wall as might be hurriedly constructed for purposes of defense. No mortar or clamps are used, and a large block of marble, an architectural fragment, has been built in with the breccia.

As stated above, the circular wall is joined at its western extremity by a second wall of similar construction and likewise curved. It also has the rough stone supporting wall and the facing of breccia resting upon a basement of three steps. The two walls are joined at their meeting point with much skill and are apparently contemporary. The only difference in their method of construction is that, answering to the *orthostatai* in the former wall, we have in the latter four quadrilateral blocks carefully joined, thus :



The combined height of the two courses is exactly that of the *orthostatai* to which they correspond.

Unfortunately this wall is preserved for a length of only 2.25 m., when it is interrupted by the Byzantine church. As the level of the church is below that of the wall, all traces of the latter have been destroyed and it is now impossible to state how far it extended. Possibly it formed a semicircle, or even a larger arc, and like the longer wall supported the earth of a second mound since entirely destroyed. The ground lies so low west of the Byzantine church that it is hard to believe that any further remains of the wall could be

discovered by excavating there. This entire area has been built and rebuilt in later Roman and Byzantine times, so that its original form is entirely lost.

The excavations have thus established the fact that we have here to deal not with a building in the proper sense of the word, but with a large circular stereobate or perhaps two such adjacent to each other, assuming the possibility that the second short wall is the remains of a second stereobate. This being the case, it becomes necessary to enquire as to the possible object of such a foundation; *i. e.*, as to the form of the structure that rested upon it.

Owing to the elevation and the exposed position of the surface of the supporting terrace the greater part of the structure or structures upon it has been destroyed. The scanty remains that now exist are indicated upon the plans. The large Fig. 17 shows their position upon the terrace; Fig. 19 shows more exactly the relative positions of the stones to one another; Fig. 20 shows on a larger scale the exact size and relative positions of the most important of these remains; and Fig. 20-IV. shows a cross-section of the stone numbered 4 on Figures 17 and 19. The walls *k*, *r*, and *r'* are late and do not concern us. We have therefore to take account only of those blocks which are marked *a*, *a'* and *k* upon Fig. 17.

As already stated, all the blocks marked *a* and *a'* are of very soft white poros. They number twenty-two and are all *in situ*. Each approximates toward the rectangular form, but usually varies a little from it. The vertical faces of most of them are left rough, but the top faces without exception are carefully smoothed and horizontal. In most cases the native rock has been cut away to fit the blocks and form a solid bed for them. The extant blocks are all arranged nearly in concentric circles about the point *c'*, which lies very close to the centre *c* of the arc of the retaining wall. The surface of the rock, as we have already seen, is levelled for a space about the centre for the reception of the basis *l*. From this level, however, it gradually rises toward the north and east, so that the upper faces of the poros blocks in each circle are higher than those of the blocks in the next circle within. The absence of necessary instruments rendered the

exact measurement of the relative height of the blocks impossible. The slope of the rock is, however, very slight, and block No. 7 (Fig. 19) lies scarcely more than half a

II General Plan of Poros Blocks in Situ.

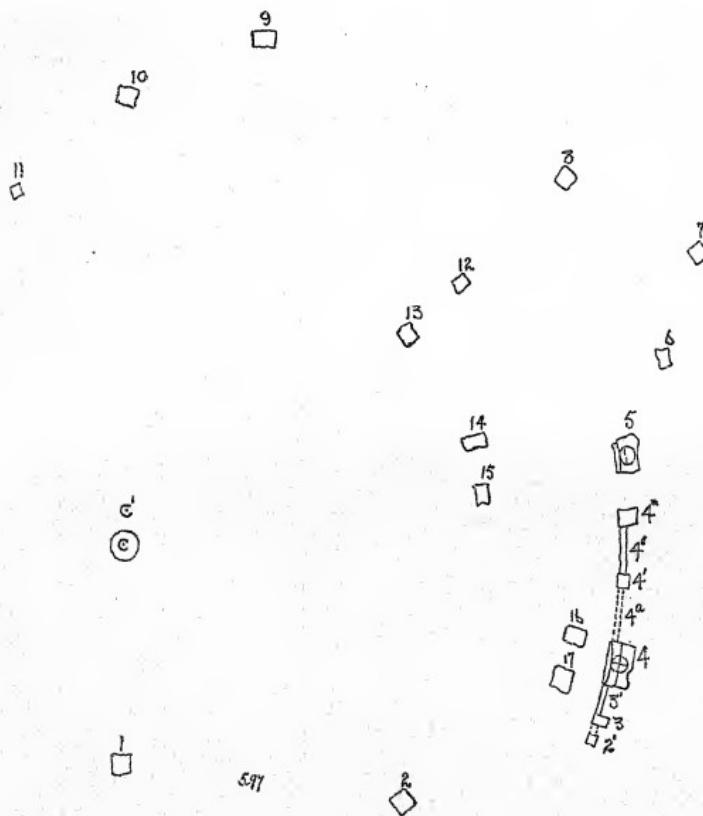


FIG. 19.

metre above the central area, although it is the highest of all the blocks and the furthest removed from the centre (10.85 m.). The arrangement is thus that of the cavea of a theatre, with a very slight slope. All the blocks except one lie north of a line drawn due east and west through the centre *c*. This, however, does not prove that none formerly

existed south of this line. They may indeed have formed a complete circuit about the centre. The rock south of the line mentioned lies low and sinks steadily toward the south. The blocks, if they existed, must therefore have lain embedded in the soil above the native rock and have long since been torn out of their exposed position and destroyed. There seems to be no evidence either to prove or to disprove the existence of a system of blocks in the southern half of this circle similar to that in the northern half.

The larger number of these blocks have no architectural form, and their smoothed upper faces suggest that they served as supports for the slabs of a pavement. Eight of the blocks, however, because of the peculiarities of their forms and position, demand especial attention. All have their faces in the same horizontal plane. They are so placed that the inner edges of 2, 3, 4^a, 4', 4'' and 4''' (Fig. 19) lie exactly on the line of a circle struck about *c'*, while blocks 3, 4, and 5 have along their upper inner edge a rabbet (.05 m. deep and .05 m. wide), the vertical face of which also lies along this same circle as shown by the dotted lines which are struck across the three stones on Fig. 20. This rabbet is shown in the section Fig. 20-IV. The southern vertical faces of stones 4 and 5 are straight (see Fig. 20), but the vertical faces of the two rabbits are cut on the circle. The horizontal faces of the rabbits are thus about a centimetre wider at the middle (*i. e.*, at *c* and *h*) than at the ends. On the upper face of each of these stones there is a circular surface raised a little more than a centimetre above the rest of the surface of the stone, and .42 m. in diameter. Although the edges of the circles have been broken in parts, yet accurate measurement of their diameters is possible. The two circles (one on each stone) agree in size. On the upper surfaces of each of these two circles are incised two grooves having a triangular cross-section; see section, Fig. 20-IV. These grooves are small; about .004 m. broad at the top and .003 m. deep. They can also be traced in places on the other parts of the top faces of the two stones. They are indicated on Fig. 20 by the lines *a b*, *c d*, *e f*, *g h*; *a b* and *e f* are cut upon a line of a circle concentric with that upon which the inner edges of the stones and the vertical faces of the rabbits lie, while *c d*

and g h are cut along radii of the same circle. The radial lines cross the circular ones exactly at the centre of the raised circular faces. These lines doubtless served constructional purposes, probably to mark the central point upon which a column was to be placed. The surface of the stones about the circles is not smoothed, but has the appearance of having been rudely broken and cracked away. Such

III Enlarged Plan of Stones.

C - centre of large circuit wall
 C' - centre of circle cut on the
 upper surface of blocks 4+5
 Distances of inner edge of stones
 to centres of (large circle) [C]

1	3.15	9	3.95
2	3.20	10	4.00
3	3.20	11	4.00
4	3.20	12	4.00
5	3.25	13	4.00
6	3.25	14	4.00
7	3.30	15	4.00
8	3.35	16	4.00
9	3.40	17	4.00
10	3.45	18	4.00
11	3.50	19	4.00
12	3.55	20	4.00
13	3.60	21	4.00
14	3.65	22	4.00
15	3.70	23	4.00
16	3.75	24	4.00
17	3.80	25	4.00
18	3.85	26	4.00
19	3.90	27	4.00
20	3.95	28	4.00
21	4.00	29	4.00
22	4.05	30	4.00
23	4.10	31	4.00
24	4.15	32	4.00
25	4.20	33	4.00
26	4.25	34	4.00
27	4.30	35	4.00
28	4.35	36	4.00
29	4.40	37	4.00
30	4.45	38	4.00
31	4.50	39	4.00
32	4.55	40	4.00
33	4.60	41	4.00
34	4.65	42	4.00
35	4.70	43	4.00
36	4.75	44	4.00
37	4.80	45	4.00
38	4.85	46	4.00
39	4.90	47	4.00
40	4.95	48	4.00
41	5.00	49	4.00
42	5.05	50	4.00
43	5.10	51	4.00
44	5.15	52	4.00
45	5.20	53	4.00
46	5.25	54	4.00
47	5.30	55	4.00
48	5.35	56	4.00
49	5.40	57	4.00
50	5.45	58	4.00
51	5.50	59	4.00
52	5.55	60	4.00
53	5.60	61	4.00
54	5.65	62	4.00
55	5.70	63	4.00
56	5.75	64	4.00
57	5.80	65	4.00
58	5.85	66	4.00
59	5.90	67	4.00
60	5.95	68	4.00
61	6.00	69	4.00
62	6.05	70	4.00
63	6.10	71	4.00
64	6.15	72	4.00
65	6.20	73	4.00
66	6.25	74	4.00
67	6.30	75	4.00
68	6.35	76	4.00
69	6.40	77	4.00
70	6.45	78	4.00
71	6.50	79	4.00
72	6.55	80	4.00
73	6.60	81	4.00
74	6.65	82	4.00
75	6.70	83	4.00
76	6.75	84	4.00
77	6.80	85	4.00
78	6.85	86	4.00
79	6.90	87	4.00
80	6.95	88	4.00
81	7.00	89	4.00
82	7.05	90	4.00
83	7.10	91	4.00
84	7.15	92	4.00
85	7.20	93	4.00
86	7.25	94	4.00
87	7.30	95	4.00
88	7.35	96	4.00
89	7.40	97	4.00
90	7.45	98	4.00
91	7.50	99	4.00
92	7.55	100	4.00
93	7.60	101	4.00
94	7.65	102	4.00
95	7.70	103	4.00
96	7.75	104	4.00
97	7.80	105	4.00
98	7.85	106	4.00
99	7.90	107	4.00
100	7.95	108	4.00
101	8.00	109	4.00
102	8.05	110	4.00
103	8.10	111	4.00
104	8.15	112	4.00
105	8.20	113	4.00
106	8.25	114	4.00
107	8.30	115	4.00
108	8.35	116	4.00
109	8.40	117	4.00
110	8.45	118	4.00
111	8.50	119	4.00
112	8.55	120	4.00
113	8.60	121	4.00
114	8.65	122	4.00
115	8.70	123	4.00
116	8.75	124	4.00
117	8.80	125	4.00
118	8.85	126	4.00
119	8.90	127	4.00
120	8.95	128	4.00
121	9.00	129	4.00
122	9.05	130	4.00
123	9.10	131	4.00
124	9.15	132	4.00
125	9.20	133	4.00
126	9.25	134	4.00
127	9.30	135	4.00
128	9.35	136	4.00
129	9.40	137	4.00
130	9.45	138	4.00
131	9.50	139	4.00
132	9.55	140	4.00
133	9.60	141	4.00
134	9.65	142	4.00
135	9.70	143	4.00
136	9.75	144	4.00
137	9.80	145	4.00
138	9.85	146	4.00
139	9.90	147	4.00
140	9.95	148	4.00
141	10.00	149	4.00
142	10.05	150	4.00
143	10.10	151	4.00
144	10.15	152	4.00
145	10.20	153	4.00
146	10.25	154	4.00
147	10.30	155	4.00
148	10.35	156	4.00
149	10.40	157	4.00
150	10.45	158	4.00
151	10.50	159	4.00
152	10.55	160	4.00
153	10.60	161	4.00
154	10.65	162	4.00
155	10.70	163	4.00
156	10.75	164	4.00
157	10.80	165	4.00
158	10.85	166	4.00
159	10.90	167	4.00
160	10.95	168	4.00
161	11.00	169	4.00
162	11.05	170	4.00
163	11.10	171	4.00
164	11.15	172	4.00
165	11.20	173	4.00
166	11.25	174	4.00
167	11.30	175	4.00
168	11.35	176	4.00
169	11.40	177	4.00
170	11.45	178	4.00
171	11.50	179	4.00
172	11.55	180	4.00
173	11.60	181	4.00
174	11.65	182	4.00
175	11.70	183	4.00
176	11.75	184	4.00
177	11.80	185	4.00
178	11.85	186	4.00
179	11.90	187	4.00
180	11.95	188	4.00
181	12.00	189	4.00
182	12.05	190	4.00
183	12.10	191	4.00
184	12.15	192	4.00
185	12.20	193	4.00
186	12.25	194	4.00
187	12.30	195	4.00
188	12.35	196	4.00
189	12.40	197	4.00
190	12.45	198	4.00
191	12.50	199	4.00
192	12.55	200	4.00
193	12.60	201	4.00
194	12.65	202	4.00
195	12.70	203	4.00
196	12.75	204	4.00
197	12.80	205	4.00
198	12.85	206	4.00
199	12.90	207	4.00
200	12.95	208	4.00
201	13.00	209	4.00
202	13.05	210	4.00
203	13.10	211	4.00
204	13.15	212	4.00
205	13.20	213	4.00
206	13.25	214	4.00
207	13.30	215	4.00
208	13.35	216	4.00
209	13.40	217	4.00
210	13.45	218	4.00
211	13.50	219	4.00
212	13.55	220	4.00
213	13.60	221	4.00
214	13.65	222	4.00
215	13.70	223	4.00
216	13.75	224	4.00
217	13.80	225	4.00
218	13.85	226	4.00
219	13.90	227	4.00
220	13.95	228	4.00
221	14.00	229	4.00
222	14.05	230	4.00
223	14.10	231	4.00
224	14.15	232	4.00
225	14.20	233	4.00
226	14.25	234	4.00
227	14.30	235	4.00
228	14.35	236	4.00
229	14.40	237	4.00
230	14.45	238	4.00
231	14.50	239	4.00
232	14.55	240	4.00
233	14.60	241	4.00
234	14.65	242	4.00
235	14.70	243	4.00
236	14.75	244	4.00
237	14.80	245	4.00
238	14.85	246	4.00
239	14.90	247	4.00
240	14.95	248	4.00
241	15.00	249	4.00
242	15.05	250	4.00
243	15.10	251	4.00
244	15.15	252	4.00
245	15.20	253	4.00
246	15.25	254	4.00
247	15.30	255	4.00
248	15.35	256	4.00
249	15.40	257	4.00
250	15.45	258	4.00
251	15.50	259	4.00
252	15.55	260	4.00
253	15.60	261	4.00
254	15.65	262	4.00
255	15.70	263	4.00
256	15.75	264	4.00
257	15.80	265	4.00
258	15.85	266	4.00
259	15.90	267	4.00
260	15.95	268	4.00
261	16.00	269	4.00
262	16.05	270	4.00
263	16.10	271	4.00
264	16.15	272	4.00
265	16.20	273	4.00
266	16.25	274	4.00
267	16.30	275	4.00
268	16.35	276	4.00
269	16.40	277	4.00
270	16.45	278	4.00
271	16.50	279	4.00
272	16.55	280	4.00
273	16.60	281	4.00
274	16.65	282	4.00
275	16.70	283	4.00
276	16.75	284	4.00
277	16.80	285	4.00
278	16.85	286	4.00
279	16.90	287	4.00
280	16.95	288	4.00
281	17.00	289	4.00
282	17.05	290	4.00
283	17.10	291	4.00
284	17.15	292	4.00
285	17.20	293	4.00
286	17.25	294	4.00
287	17.30	295	4.00
288	17.35	296	4.00
289	17.40	297	4.00
290	17.45	298	4.00
291	17.50	299	4.00
292	17.55	300	4.00
293	17.60	301	4.00
294	17.65	302	4.00
295	17.70	303	4.00
296	17.75	304	4.00
297	17.80	305	4.00
298	17.85	306	4.00
299	17.90	307	4.00
300	17.95	308	4.00
301	18.00	309	4.00
302	18.05	310	4.00
303	18.10	311	4.00
304	18.15	312	4.00
305	18.20	313	4.00
306	18.25	314	4.00
307	18.30	315	4.00
308	18.35	316	4.00
309	18.40	317	4.00
310	18.45	318	4.00
311	18.50	319	4.00
312	18.55	320	4.00
313</			

the base and about 1.40 m. high). The diameter of the columns is very close to that of the circular surfaces on the blocks, and it is probable that the columns originally stood upon them. A small fragment of a third column, agreeing in material, size, and style with these two, was also found in the trench east of the building. There was found, too, a small piece of a Doric capital measuring .13 m. from the annulets to the bottom of the abacus. The size corresponds well with that of the columns. The fragment of a triglyph of which one band measures .135 m., thus giving .405 as the full width, is too large to belong with the columns. The existence of the Doric columns, however, makes almost necessary the assumption also of the usual Doric entablature with triglyph-frieze. If such an entablature existed here, it was of course curved. No fragments of a curved architrave have been found. Built into the late wall reconstructed along the line of the semicircular wall north of *s*, there is a curved marble block which may be from an architrave. It has still the boss upon its surface. The radius of the curve upon which its faces are cut is, however, much smaller than that of the curve along which the columns stood, and it cannot have belonged to them.

The rabbets cut along the edges of the stones 3, 4, and 5 appear to have served as supports for pavement-slabs. Indeed, on the western and eastern vertical faces of stone 4 there are joint-surfaces, which prove the existence of at least another block on each side.

It thus appears probable that the large circular terrace supported a circular colonnade paved with marble or poros (probably the former; as soft poros here employed would scarcely have stood the wear to which a pavement is subjected) having in its centre a flat area containing a basis supporting a statue or a group. The form of the part of the basis still preserved is seen by a glance at Fig. 17. It is complete at the eastern end. If we conceive of it as originally having extended as far east of the circle as the western end lies west of the circle, we have a basis of the shape indicated by the dotted lines on Fig. 17.

There still remains the wall *e e*, which is beyond doubt of Hellenic workmanship and of a good period. It consists of

a single course. The length of the preserved part is seven metres. It is complete at the western end. The eastern face of the last stone toward the east bears a joint-surface, which proves that the wall extended still further in this direction; how far is uncertain. The top face bears a joint-surface .15 m. broad and .005 m. above the rest of the face of the stone. This joint-surface turns at the eastern end, not exactly at a right angle.

The wall is entirely isolated from all vestiges of other walls, and there exists no clue to the form of the structure to which it belonged. Its position, however, at the highest point of the terrace along the eastern side of the small plateau mentioned above, at the natural point of approach to the terrace, suggests that there existed here a sort of propylæa, by which access was given to the terrace and colonnade.

The small objects brought to light by the excavations are of little importance. No work of art was found which can be assigned to a period as early as the third century B. C. The finds were all or almost all Roman or Byzantine.

Of sculpture there were found the following pieces:

(a) The head of a Roman emperor (?) ; white marble. The head, of natural size, is bearded and hence later than Trajan. It is, moreover, cut in very thin relief. The work is very poor. The features are cruel, and the face bears some resemblance to the portraits of Caracalla. The circles of the iris of the eyes are deeply incised, and the pupils are indicated by a hollow. Found on top of terrace, thirteen metres directly in front of the west end of wall *e e*, at the point marked *b* on Fig. 17.

(b) Fragment of a relief—lower right-hand corner. Found in trench east of large wall at a depth of two metres. Size .26 x .30 m.; white marble; represents a standing man holding his robe across his breast with his right hand. The piece is much mutilated; head and face are broken away. Work poor.

(c) Fragments of a relief; white marble; .08 x .12 m., representing a draped woman from the breasts to the knees. Very poor work.

(d) Fragment of drapery .25 m. long. The folds are large

enough to have belonged to a statue of natural size. Found on surface of terrace near the centre.

(e) A wrist, natural size, .95 m. long and .18 m. in circumference; white marble with blue veins. Upon the wrist a few folds of drapery which were clasped by the fingers; about it a raised convex ridge—perhaps a bracelet or the remains of a finger which clasped it.

(f) South of the building, in trench, a fragment of drapery in white marble, .175 m. x .17 m.

(h) In the trench at the west a white marble slab (size .28 x .35 x .08 m.) bearing in mezzo-rilievo, in the centre, an urn with two handles, ornamented; at the right a fragment of a tendril, conventionalized, at the left a lion's head facing. This resembles the small metopes from the altar-entablature built into the little Metropolitan church at Athens. After finding this I noticed a second like it in the museum and a third built into an arch in the main street of Sparta.

(i and j) Capital and base of a Byzantine pilaster; white marble. Both found near the Byzantine church. The latter bears two lion's paws and between them an acanthus leaf.

(k to n) White marble Corinthian capital. Found in Byzantine church. Base of Ionic column, found on top of terrace (white marble). Fragment of white marble Ionic capital showing part of echinus with egg and dart pattern, the inner edge of the volute, and the honeysuckle-blossom between them. Fragment of a small Doric capital, white marble (see above).

(o) Coarse clay jar without slip or ornament; height .21 m.; found in east trench.

(p) Coarse clay pot, without slip or ornament. Found in the triangle between the Byzantine church and the circular building.

(q) A number of Roman and Byzantine coins, many obscure, but none so early as the age of the Antonines. Two small wheels .015 m. in diameter, one of bone and one of blue stone, both pierced by a small hole in the center. Several bone styls. A *κομβή*.

There is no doubt that we here have to deal with a circular

building in the construction of which a hillock or large mound has been used. The relation of the building to this hillock seemed to me so peculiar that I believed it might be some ancient tumulus or grave, or might at least bear some reference to a prehistoric or heroic place of interment. The Laconian custom (especially the instance of the neighboring Amyclæ with its temple of Apollo built upon the grave of Hyacinthus) and the numerous heroic graves in Sparta itself lent strong support to such a supposition. It is not impossible that this may still turn out to be the case.

The lower structure of this circular building with the orthostatae acted as a supporting wall, while the building consisted of at least three concentric circles. It appears probable that the round hole cut in the block occupying the centre of the circumference was meant to hold the mastlike post which supported an umbrella-shaped roof.

Our monument must thus be classed among the round buildings which are of so much interest in the history of Greek architecture. The Prytaneum, the Tholos, the temple of Hestia, perhaps even the Skias⁴ were all in origin intimately related to one another. The Prytaneum, or "City hall," of ancient Athens stood on the high ground at the foot of the northern declivity of the Acropolis. In the time of Pausanias the Prytanes sacrificed and dined in the Tholos, a circular building in a different part of the city, which building thus took over some of the functions of the older Prytaneum.⁵ As Mr. Frazer well puts it (p. 152), "The Prytaneum, a round building with a pointed, umbrella-shaped roof, was originally the house of the king, chief, or headman (prytanis) of an independent village or town, and it contained a fire which was kept constantly burning. It is only necessary to add that, when a colony was sent out, the fire

⁴ *Etym. Magnum*, s. v. Σκιάς. Were it not for the definite πρὸς δὲ τῇ Σκιάδι οἰκοδύμηρά ἔστι περιφέρει . . . in the passage in Pausanias referring to the Spartan building one might doubt whether the Spartan Skias was not identical with this circular building.

⁵ CURTIUS, *Attische Studien*. ii. p. 63, seq. For θέλας cf. Hesychius, Harpoecration, Suidas, Timaeus, *Lex. Plat.*, s. v. θέλας. See also I. G. FRAZER on the *Prytaneum*, the *Temple of Vesta*, etc., in *Journal of Philology*, London, 1885, vol. xiv. p. 145, seq., an article which throws considerable light on the history of these early buildings.

for the chief's house (*Prytaneum*) in the new village was taken from that of the chief's house in the old village.⁶

The fire (*focus*, *foculus*, the hearth, *έστια*, *έσχάρα*, *έσχαρις* Vesta) thus becomes the centre of importance in these buildings and the worship and rites connected with them, as it was the centre of importance in the house and household. In the Homeric house it stood in the corner of the *αὐλή*.⁷ The same relation obtains in all early civilizations and has led to the round building,⁸ be it a *barrow*, or a *dolmen*, or a Sardinian *nuraga*, or an East Indian *tope*, or the hut of the American Indian. There can be but little doubt that the later Roman temple of Vesta was once part of the king's house, and thus points to the earliest form of house. The tradition of this early form of the temple of Vesta, with walls of wattled osiers and thatched roof, is directly referred to by Ovid.⁹

As regards the whole history of these round buildings, to use Mr. Frazer's words, "we descry in the past the chiefs of the old Graeco-Italian clans dwelling in round huts of wattled osiers with peaked roofs of thatch."

The Spartan building thus brings us in relation with the remotest prehistoric times of Hellas and with the earliest stages of civilization in all parts of the world. This building has evidently undergone many changes during the Roman and Christian periods of its history. The statues of Zeus and Aphrodite, mentioned by Pausanias as standing in the building in his time, were of subsequent date. The finger of the colossal statue found last year, in the immediate vicinity of the statue-pedestal on the central height of the building, manifestly belongs to a period not earlier than the close of the fourth century B. C., and may be Roman. There are other fragments and heads of distinctly Roman workmanship found on the site; while some traces of repairs in the early building itself, as well as most of the additions to it, are of the Roman times. So, too, the inscriptions are of the Roman period. On the other hand the *boustrophedon* in-

⁶ *Od.* xxii. 466 (Schol. *ibid.*) makes it the storehouse. It may thus have resembled the *θηγανός*, and hence the bee-hive tomb.

⁷ FERGUSSON, *Rude Stone Monuments in all Countries*, London, 1872.

⁸ *Fusti* vi. 261 seq.

scription found on the same site evidently belongs to the archaic Greek period. It appears beyond a doubt that the circular wall with the orthostatae is of early Hellenic structure. The poros blocks *in situ* probably also belong to this

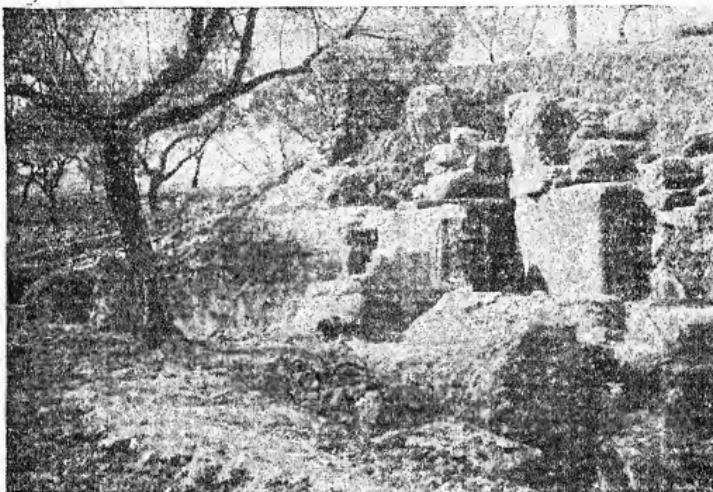


FIG. 21.

early Hellenic building. The identification of this edifice with the circular building mentioned by Pausanias⁹ is most natural. The masonry of the large stones, without clamps or mortar, points to an age preceding the early historical buildings of the fifth century B. C.

Epimenides, to whom this building is assigned by Pausanias, furnishes us with a date which corresponds well with the archaeological evidence. We cannot go far wrong in fixing upon the year 600 B. C. as an approximate central date. It may have been erected several years earlier in the life of Epimenides, but as he appears, according to one tradition, to have died at Sparta, perhaps the beginning of the sixth century may be a more likely date. In the traditions concerning Epimenides¹⁰ there are no doubt uncritical and myth-

⁹ *Loc. cit.*

¹⁰ The chief sources are DIOG. LAERT. i § 109-115; PLUT., *Solon.* 22; STRABO, x. p. 479 c; PAUS. 1, 14, 3.

ical admixtures, but he appears to have been one of the early hieratic poets from Crete," who exercised considerable influence in his age in the various centres of Greek life. He was a sage and spiritual purifier. It is no doubt owing to this great influence that the more fabulous elements have been in later times attracted to his name. The fixed and important date in his life is furnished by the call he received from Athens to purify from the Cylonian sacrilege, in which the Athenians followed the dictates of a Delphic oracle. This most probably took place in the first year of the 46th Olympiad, *i. e.*, 596 b. c., a few years before the Archonship of Solon (594 b. c.).

If we are right in the identification of this building, it will readily be seen of what signal importance for the history of Greek architecture this monument is. As a *tholos*, or circular building, it points back to the very earliest form of primitive architecture; while on the other hand it would be perhaps the earliest known building of the historical period of Greek history.

It furthermore is of the greatest value for the topography of ancient Sparta. The treatises on the topography of Sparta,¹¹ have hitherto necessarily been of a purely hypothetical nature. It is much to the credit of Professor Nestorides that he should have assigned just this place to the "circular building" mentioned by Pausanias, independently of our excavations. With the theatre and this building we now have two fixed points of departure. The Skias must be close by; while it appears to us that we might look for the Agora to the south of the mound running toward the theatre; but much closer to the hills than has hitherto been supposed. Still, even at this moment, with the new point gained, it appears to us that reconstructions of the ancient topography of Sparta are premature. We must wait for further evidence from the spade and pick.

¹¹ He was a native of Phaestos near Gortyna or of Knossos in Crete.

¹² Besides A. Blouet, *Expédition Scientifique de la Morée*, Paris, 1838 (where an amphitheatre, not to be confused with this circular building, is given in III. Pl. 46 on the southeastern slope of "Citadelle"), and E. Curtius, *Der Peloponnes*, we might mention K. Stein, *Die Topographie des Alten Sparta*, and R. Nestorides, *Τοπογραφία τῆς Ἀρχαὶ Σπάρτης*, Athens, 1892, which has appeared since our first excavation, though it was written before we began our work.

The system upon which such excavations ought to be carried out in the future seems to us to be clearly defined. Immediately below this mound, running along the foot of the hills in either direction (east and west) are considerable ruins of late city walls, into which many stones of ancient masonry are built. Now a careful examination of these walls has shown that their bases consist frequently of series of ancient worked stones grouped together; those of one kind are massed together for a certain distance, and are followed by series of other stones of different material and workmanship. The cause for both this uniformity of material for a certain distance, and the diversity in the various sections of the wall, seems to be the fact that the stones in the several instances were taken from ancient buildings close at hand. These ancient buildings are to be sought for in close proximity to the wall. Some of these worked stones bear inscriptions.

The first task of the future excavator will thus be to clear the lower portions of these walls from weeds and shrubs and to dig to the bottom of the walls. It may be found that some of the foundation-stones of ancient structures, are actually *in situ*, and trenches at right angles to them may lead to the other walls of the buildings.

It is not improbable that the Agora and many other structures may thus be discovered, and the greater the number of such identifications the more easy will it be to fix the topography and to find the remaining buildings mentioned by Pausanias.

CHARLES WALDSTEIN,
C. L. MEADER.

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
STUDIES AT ATHENS.

REPORT ON EXCAVATIONS BETWEEN SCHENO-
CHORI AND KOUTZOPODI, ARGOLIS, IN 1893.

Last year, while exploring the site of the battlefield of the ancient Oenoë, I noticed a hillock or large mound in the fields to the right of the road leading from Schenochori (probably Oenoë) to the village of Koutzopodi, about halfway between the two. It seemed to me probable, from the configuration of the surrounding country as well as the nature of the mound, that this elevation covered ancient ruins; and I decided to carry on trial excavations at the earliest opportunity which should present itself. Accordingly on April 6 of this year I rode over to the site from our camp at the Heraeum and made all preliminary arrangements to begin work. It was not until April 20 that I was able to take workmen with me to this site near Koutzopodi. I at once set the men to work, leaving one of our most trusted workmen and an Epistates of the Greek government in charge. Work was continued here for four days, the overseers reporting to me in the evening at the Heraeum.

When Mr. Paton joined us at the Heraeum on April 23, I thought it desirable that a member of the school should be in charge of this work and should remain upon the spot during the continuance of the trial. Accordingly Mr. Paton accompanied me to Koutzopodi on April 24, and having decided the general direction of the work, I left him in charge. I here give his general report together with a plan.

C. W.

When I took charge of the work near Koutzopodi the excavations had been confined to the south and west sides of the mound. The southwest corner (*F A B C D*) had been laid bare, as well as the long southern wall *C M*. At the southwest corner the walls (*C D* and *C e*) had been excavated to the

bottom, a depth of 2.28 m., and this had also been done between *i* and *k*. The cistern at *o* had been cleared out, and a beginning had been made at clearing the eastern wall (*M P*). The earthenware pipe (*D Q*) had been found, together with the doorway ($\delta\gamma$), which led to the belief that here was the entrance to a large tomb. No object of value had been discovered. Some fragments of a highly colored tiling, which could have formed part of an ornamental facing or cornice, and some fragments of Megarian ware with figures in relief, had been found along the wall near the southeast corner, but the workmen could not give the exact place of their discovery, except that it was near the cistern.

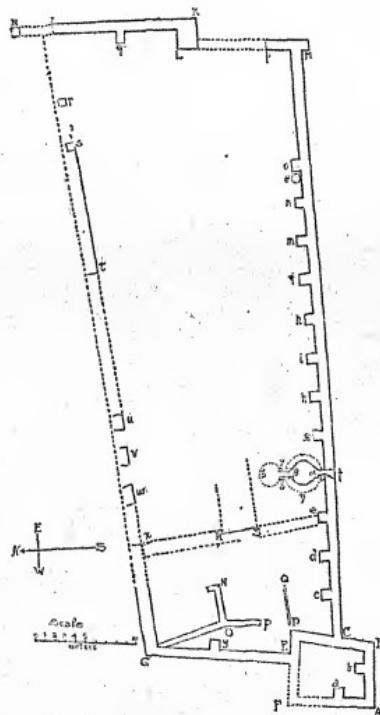


FIG. 22.

On Friday I began work at three points. On the top of the mound a short distance back of the doorway (at \mathcal{Z}), two men

were employed to dig into the supposed tomb. At the top were found traces of a late wall of small stones mixed with thin slabs of brick and laid in mortar, but not squared or carefully worked, and, below these, some larger stones, also rough. Near the surface, but at varying depths, were found two or three slightly rounded pieces of stone, such as might have formed part of a well-curb, but unfortunately the remains were not sufficient to determine this point. Below this wall was a thin layer of very soft yellow poros, and below this a thin layer of pinkish sand, lime, and small stones. Just above this stratum were found a few small fragments of a reddish stucco. As all these remains were near the surface, and as there are other remains of late walls near this point (*R S*), it seems probable that they are connected with some very much later building, probably a Byzantine church. Below this layer of sand came a succession of large rough stones, mixed with earth, but certainly no part of a wall. Here nothing was found except a few fragments of clay tiles, without stamps, and a small piece of black ribbed pottery. On reaching the level of the doorway and clearing out completely the earth on that side of the pit, an arch was found above the doorway, composed of regularly laid slabs of stone and tiles. In the earth that was thus cleared away were found two small bronze disks, each pierced at the rim. Both were very much defaced with rust, but one seemed to have on it a Byzantine device. From their general appearance and size, I believe them to be Byzantine medals or tokens, to be worn as amulets. The virgin soil was reached just below the level of the door-posts. Pieces of tile were found to have been wedged in around the posts. At the same time four men were cutting a cross-trench (*e x*) through the mound to the west of the doorway, but this work yielded nothing of interest. Near the surface (*R*) a number of coarse tiles were found, and a stone shaped like a boat, but not hollowed out. The dimensions were: length on top 0.47 m., width 0.17 m., length along keel 0.56 m., and girth at the center 0.26 m. There are a number of similar stones from Selinus in the Museum at Palermo, and with them flat slabs, slightly turned up at the edges. They seem to have been used for rubbing fine grain, instead of grinding it. In the southern

part of the trench (*S E*), near the surface, were found two small and perfectly plain vases. So far as I am able to judge, they belong to a very late, possibly Christian period. Somewhat deeper, near the Byzantine wall (*S*), were found a human skull and other bones, but no trace of a coffin or a regular tomb, nor were any ornaments found with the body.

The other four men were employed in tracing the wall along the north side and at the east end, where it passes over the edge of the mound and not around the foot as is the case on the other three sides. Along the eastern wall several late graves were uncovered, the bodies buried close to the surface with no trace of a coffin, and apparently no enclosing slabs of stone. In some places the wall has been partly removed to make room for these graves.

On Saturday the course of the wall at the east end was further traced, but the bulk of the time and labor was spent at the west end, where a complex of walls was laid bare. I also endeavored to trace further the pipe (*D Q*), but did not get deep enough into the mound to find it again, toward the east. Its object is not very clear, as it certainly was not carried through the wall (*D*), and there seems no other exit possible. During these excavations several more graves were discovered, especially at the corner *F*, where the wall has been destroyed to make room for them; two similar graves were found near *o*, and in one of these a bracelet of bronze with small bronze disks strung upon it. A few bronze rings and pins were in these graves, but all much rusted and apparently entirely without ornament. As nothing seemed likely to be gained by excavating for two or three days longer, the work was suspended for the season on April 29.

The results of the six days of work were as follows:

A wall has been traced entirely around the hillock, forming an irregular quadrangular enclosure having its major axis from east to west, and broader at the east end than at the west. At the southwest corner is a projecting quadrangle, and the eastern wall is somewhat irregular, suggesting a similar projection at the northeast corner, as it seems to continue beyond the point of intersection with the northern wall.

Very little of the northern wall is preserved near the surface, although it is possible that deep digging would show

that the foundations still exist. The wall has been destroyed by the inhabitants of Koutzopodi, and the owner of the field helped us in finding the traces that still exist by pointing out the places from which he had removed large stones. Single blocks (*r*, *u*, *v*, *w*) and a fairly well preserved piece, 12.92 m. long (*s t*) were sufficient to determine the direction of the wall and its probable intersection with the eastern wall (*I*). At the northwest corner the wall is preserved. The measurements give a probable length of 61.38 m., breadth of 1.20 m., and direction 81° east of north. The eastern wall perhaps begins with a block of poros (*H*) in the field, 2.65 m. from the intersection of the northern wall (*I*), but it is distinctly preserved from this latter point for a distance of 10.45 m. in a direction due south (*I K*); the breadth is 1.10 m. Near the middle of this piece is a block of poros (*g*) on the inside. It is in contact with the wall, but not built into it, and does not show any certain evidence of being the upper stone of a buttress. At *K* the wall turns sharply west for 3 m., and has a width of 2 m. (*K L*). From this point there is no trace of a wall near the surface for 6.70 m., but it was found again and traced to the corner (*P M*), a distance of 2.33 m.; the breadth was 1.06 m.; the course 2° east of north. The southern wall is the best preserved and the most fully excavated. It has a length (*C M*) of 55.30 m., a breadth of 0.97 m. (at *g*), and a direction of 87° east of north. The material is a yellow poros of good quality. The wall is strengthened on the inside by eleven buttresses having an average thickness of 0.99 m., and a depth of 0.94 m. The eastern end of this wall has been merely traced on the surface, and it is possible that two more buttresses may have existed in this interval, but I found no sign of them. At the point where the fourth buttress should come (*f*) the wall is broken through, though a trace of the buttress remains, and opposite this point is a peculiar doorway (*β*).

The space between the sixth and seventh buttresses (*i k*) has been completely excavated, and at this point the whole structure of the wall is clear. It has a depth of 2.66 m., and is laid in seven courses 0.38 m. high, alternately stringers and headers. The stringers are 0.92 m. long, and the headers 0.46 m. The stringer courses are so laid that the vertical

joints are in line, while the headers are carefully placed so that two joints shall fall over every stringer, but not in the same vertical line as the joints in the other two header courses. Though the wall has every appearance of careful work, the stones are not accurately smoothed and jointed, and were evidently intended to be concealed by earth. The eastern buttress (*k*) has the same depth as the wall, but the western (*i*) is two courses shallower; it is 1.90 m. deep.

Just west of the easternmost buttress (*o*) is a small but deep cistern (*θ*), which has been excavated to a depth of 6.45 m. It has a diameter at the top of 0.87 m., and is lined with a hard light cement or stucco. The upper edge is broken so that it is impossible to tell at what level the original curb was placed. The western wall (*G E*) has a length of 11.65 m., a breadth of 1 m., and a direction 3° east of north. At a distance of 6.80 m. from the southern end (*E*) is a buttress (*y*) 0.95 m. broad, and 1.01 m. deep. The southwest corner is occupied by the quadrangle already referred to, which is well preserved except the northwest corner, where the upper courses have been destroyed by late graves. On the north (*D F*) it has a preserved length (*D E*) of 3.22 m., a breadth of 0.95 m., and a direction 81° west of north. On the east (*B D*) the length is 7.14 m., the breadth 1.05 m., and the direction 9° east of north. On the south (*A B*) the length is 4.48 m., the breadth 0.95 m., and the direction 89° east of north. The buttress (*b*) is 1.21 m. from the eastern end, 0.97 m. broad, and 0.91 m. deep. On the west the preserved length (*A F*) is 4.59 m., breadth 0.90 m., and direction 3° east of north. The buttress (*a*) is 2.09 m. from the southern end, 1.00 m. broad, and 0.93 m. deep.

At the northwest corner is a piece of very carefully laid wall (*G O*), in my opinion the best piece that we have uncovered. It is 5.70 m. long, 0.66 m. broad, and its course is 19° west of north. At *O* it changes direction, and extends for 3.22 m. in a line 2° west of north, and then suddenly stops (*P*). From *O* starts also a cross-wall (*O N*), 3.30 m. long, 0.56 m. thick, and running 79° east of north; it terminates in a corner toward the north.

The earthenware pipe (*d q*) has a length of 4.27 m., a direction of 81° east of north, and a depth below the top of

the wall at D of 0.80 m. The diameter of the pipe is about 0.14 m., and the style seemed to me very like that of the pipes in the Roman conduits at the foot of the Pnyx in Athens.

It remains to describe the only structure discovered within the enclosing wall. On the south side, at the point where the fourth buttress should be (γ), the upper course of the wall and a part of the buttress have been cut away, and inside there is a plainly marked circle, having a diameter of 3.41 m. measured from the inner edge of the wall to the northern side ($\gamma \beta$). This circle is not marked by a wall, but is distinguished by a bottom of sand and a small mixture of black carbonaceous matter. At β is an opening 1.05 m. high, and having a depth on the west ($\beta \delta$) of 0.89 m., and on the east ($\beta \gamma$) of 1.18 m. This difference in depth is due to an irregularity at the outer end of the tunnel. Inside are two door-posts ($\delta \gamma$) 0.80 m. thick, 0.70 m. high, and 0.50 m. apart, and upon them rests a lintel 0.75 m. long, and 0.20 m. high. There is no trace of a sill, or of anything in the nature of a door or shutter. Above this doorway is an arch 1.80 m. from the ground and 0.90 m. from the lintel, having a span of 0.92 m. and a height of 0.32 m., composed of thin slabs of stone and brick. The bottom of the excavation at this point is 2.70 m. from the upper surface of the mound.

In the present state of the excavations, no certain explanation can be given as to the nature of the mound and its enclosing wall. It seems to me probable that we have here a building in connection with some extensive fountain or water-works. Both south and west of the mound lie large cisterns, that to the west still containing water, and the presence of the pipe is proof that there was water inside the wall. If this is correct, the doorway is an opening giving access to a reservoir or allowing the water to pour out into a basin before it. I noticed a very similar arrangement at an old spring on the slope of Parnassus, at the foot of the hill on which is the Corycian cave. There a flight of several steps leads down to a low doorway through which the water is reached. The character of the enclosing wall does not suggest an early date, and the fact that no fragments of pottery earlier than the moulded Megarian ware were found,

makes it not improbable that the whole structure is not earlier than the latter part of the third century B. C. At a much later date the top of the mound seems to have been used for a Byzantine church, which became the centre of a cemetery. Further than this in the interpretation of the results of the excavations, I do not dare to go. If the excavations are continued, it is possible that more definite clues can be found by following up the earthenware pipe and the inner walls at the western end, and by deeper digging along the north and east sides and the southeast corner. Evidently all the stones on the surface have been removed by the Greeks of the neighboring villages, but in view of the depth of the existing foundations, there must be enough left underground to throw more definite light on the nature of the mound.

JAMES M. PATON.

I agree with the conclusions formed by Mr. Paton. To arrive at more definite results, much more extensive operations would have to be begun. Considering the work we have before us at the Heraeum, it will not be worth our while to do this for the present.

CHARLES WALDSTEIN.

NOTES ON ROMAN ARTISTS OF THE MIDDLE
AGES.

IV.

THE CLOISTER OF THE LATERAN BASILICA.¹

[PLATE XIV]

The main reason for writing this paper is the recent discovery of the date of the cloister of S. John Lateran in Rome. It is not a minute description, but merely a sketch, the main object of which is a brief comparative study of the Roman cloisters and a tentative grouping of them according to style, so as to bring into relief the importance of the Lateran cloister as the originator and propagator of a new style, and incidentally to call attention to some interesting Roman cloisters that are practically unknown.

The mediæval cloisters of Rome are numerous and some of them are unsurpassed in beauty. Two stand pre-eminent: the cloisters of S. John Lateran and of S. Paul outside the walls. They are as alike as twin sisters, and yet the carefully trained eye will perceive that the Lateran is slightly superior in artistic beauty, and the historical critic may conclude that it is also a trifle earlier in date. Both belong to the first half of the thirteenth century, when the Roman school had reached the summit of its artistic glory, and are works of exquisite taste, symmetrical proportions, beautiful finish, and inexhaustible fertility of detail.

Reference to PLATE XIV. will supplement the following brief description of the Lateran cloister. The four sides of the quadrangle are formed of round arches supported on coupled marble shafts with single abaci and sub-bases but with separate capitals and bases. The shafts are of varied form, some simple, some twisted or in spirals, some inlaid with

¹ A note on my discovery was published last May in Comm. de Rossi's *Bulletino di Archeologia Cristiana* V. ii. 84.

exquisite colored glass and marble mosaics. The capitals are largely foliated and of the greatest variety of design, some approximating the classic Composite and Corinthian, others the pure Gothic forms, while quite a number are decorated with animals and human figures and heads. Every side is broken up into five bays, each consisting of five arcades; the bays are separated by heavy square piers, and each corresponds on the inside gallery to a cross-vault springing from stout Ionic columns. In the middle of the central bay on each side an opening is made in the high continuous basement on which all the columns rest, and these four doorways are flanked by a pair of lions or sphinxes. The outer marble decoration above the arcade is delicate and artistic—a rare combination of color and carving. The spandrel of each arch is filled with a decorative group in relief, reminding in its technique of antique stucco decoration. Above this is a frieze consisting of a narrow mosaic band ornamented by a cornice, while above it again is a far broader band with interlaced alternating circles and squares of mosaic surmounted by a heavy carved cornice resting on a close line of corbels. The rich carving of this cornice, with its spirited lion-head gargoyle, is equal to the best mediæval work. The *motif* of the decoration is repeated exactly in other contemporary works of the Roman school, such as the choir seats at Civita Castellana. The effect of this combination of architectural and plastic forms with the rich deep coloring of the mosaics, so harmoniously worked into every part, is unique.

It is not too much to say that this cloister before its mutilation must have been the most beautiful in existence. Its constructors have been known for some time. Comm. de Rossi brought to light a copy of the artist's signature,² and the inscription itself, which had been regarded as lost, was uncovered a few years ago in the course of a restoration.³ It reads:

NOBILITER DOCTUS HAC VASSALECTUS IN ARTE
CUM PATRE CEPIT OPUS QUOD SOLUS PERFICIT IPSE.

²*Bullettino di Archeologia Cristiana*, 1875, p. 128.

³*Ibid.*, 1891, p. 90; *Bull. Arch. com.*, 1887, p. 99.

That is, Vassalectus began the work with his father and completed it alone, presumably after his father's death. It is known that an artist named Vassalectus executed an episcopal chair for the church of S. Andrea at Anagni in 1263, and I have already attempted to prove in this JOURNAL⁴ that he executed the monument of Pope Hadrian V. in Viterbo in 1276. In the same paper I have given a list of this artist's works so far as known to me, and assigned to the cloister of S. John Lateran the date of 1220 to 1230 on account of its style. I was then inclined to regard one man as the author of all these works; at present I am disposed to assign the cloister to an earlier artist of the same name and family as the author of the Anagni throne. It is certain that there were three if not four artists of the same name and family, who practised the same branch of art from one generation to another from the middle of the twelfth until the second half of the thirteenth century. Their family name was variously spelled Bassalectus and Bassallectus in the earliest works (twelfth century), then Vassalectus, Vassallectus, Vassaleetus, Vassalleto, Vasaleto, etc. This artistic family-school takes its place by the side of the others of a similar character in the Roman School, that are called, from the names of their founders, the Schools of Paulus, Ranuccius, and Laurentius.

Comm. de Rossi, who believes in the existence of four Vassaletti, attributes the cloister to the third artist and to the close of the twelfth or the beginning of the thirteenth century. Comm. Enrico Stevenson has attributed it to the first decades of the thirteenth century. The determination of its date is of especial interest for the history of the Roman school and its influence, for it is an epoch-making monument. This discovery I made accidentally, and it has confirmed my conjecture that the cloister was built between 1220 and 1230.

Cardinal Guala dei Bicchieri, Papal legate to the Albigenses, and not only the founder of the early Gothic church of S. Andrea at Vercelli, but apparently one of the promoters of the introduction of French Gothic architecture into

⁴ *Notes on Roman Artists of the Middle Ages, III. Two Tombs of the Popes at Viterbo by Vassallectus and Petrus Oderisi:* in *Am. Jour. of Arch.*, Vol. VII. (1891), pp. 38-58.

Italy, died in 1230. He had made his will in 1227 in Rome, dating it at the basilica of S. Martino di Monti, *apud S. Martinum in Montibus*. Its text is published in Ughelli's Monumental work on the bishoprics of Italy (*Italia Sacra*, iv. p. 783), but seems to have attracted no attention, though it is interesting to the archaeologist on account of the enumeration of works of art. I was struck by the following item : *Ad opus claustrum Lateranen., lib. 10 proven.* It is a laconic but important sentence. The cardinal leaves ten pounds of Provençal money as a contribution toward the construction of the Lateran cloister. The expression *ad opus* shows that in 1227, at the time of the will, the cloister was in course of erection. It had been begun ; but how long before 1227 ? and, also, when was it finished ? The fact that the clause had not been revoked before the cardinal's death shows that, in 1230, the construction of the cloister was still going on, though it was probably nearing its end. As to when it may have been begun, I shall attempt an answer before closing. The interest taken by Cardinal Guala in the cloister was natural enough. He was cardinal of S. Martino di Monti ; was often in Rome on account of the important share which he took in the diplomatic policy of the Papacy, and his knowledge of architecture is proved by the inscription of S. Andrea at Vercelli, which states that the plan and general features of this purely French structure, in the early Gothic style, were furnished by him. He was for quite a while in France. In his well-known mission to the Albigensians he had twelve associates, all abbots of the Cistercian order, and his connection with the Cistercians, proved also by his relation to the neighboring monasteries of that order at Tiglieto and Locedio, made it natural that he should patronize the new architecture which was being spread by the Cistercians, from the monasteries of the order in Burgundy.⁴

It being established that the Lateran cloister was under way between 1227 and 1230, is it possible to determine approximately the date at which its construction was commenced ? A comparative glance at the style of the mediæval cloisters in

⁴ On this subject of the introduction of Gothic architecture into Italy by the Cistercians, see my article in the JOURNAL for 1890 and 1891.

Rome and its neighborhood may give a solution. The two examples that most closely resemble the Lateran cloister are those of the monastery at Sassovivo in Umbria, near Foligno, and of the basilica of S. Paul outside the walls at Rome. At Sassovivo the work is far simpler, probably for the sake of economy, the shafts being straight and smooth, without mosaic inlay : the profiles, the mouldings, the proportions, the outside members above the arcade are all well-nigh identical with the Lateran work. The only mosaic inlay is found in the narrow frieze above the arcades, the broader frieze being of plain marble slabs. The simplicity is no sign of an earlier date. The artist signed himself thus :

*Hoc claustrum opus egregium, | Quod decorat monasterium | Donnus
abbas Angelus precepit | Multo sumptu fieri et fecit | A magistro Petro
de Maria | Romano opere et mastria | Anno Domini milleno | Iuncto ei
bis centeno | Nono quoque cum viceno.*

This gives the date as 1229, the artist as Petrus de Maria, the style as Roman. It is the only inscription which explicitly declares this style of work to be Roman, perhaps because this is the only cloister built in this style by an artist who was not a Roman or a member of the Roman School. Pietro di Maria was probably a native of Umbria. I believe that every detail of this work, every section of columns, cornices, mouldings, facings, capitals, and bases, was executed in Rome and transported to Sassovivo, and that a careful examination would show that every piece was so carefully numbered and marked as to make the setting up a merely mechanical process. This will be shown later to have been the case at Subiaco. This cloister of Sassovivo does not help as to the date of the Lateran cloister, except in so far as it shows that in 1229 the Roman style in such work was recognized. Consequently, as we must look for its prototype in Rome, and since, as will appear, this prototype can be only the Lateran cloister, it would seem also that in 1229 this cloister was so far toward completion as to serve as a model.

The cloister of S. Paul is in every respect of its construction and proportions the counterpart of that attached to the Lateran. It is true that except for one of the four sides, which is the later part and by the hand of a different artist,

this cloister is somewhat simpler in its columns and in the decoration of the spandrels of its arches ; but the greater simplicity does not extend to the other parts, such as the mosaic inlay, and appears to be no sign of an earlier date. In fact, the structure was begun under Abbot Pietro di Capua, at about the same time as the Lateran—I believe a few years later—but finished certainly later, under Abbot Giovanni di Ardea, who died in 1241. These two monuments, are, then, slightly younger contemporaries of the Lateran cloister. Are there any others that might dispute its claim—Sassovivo and S. Paul—to be the prototype of this style?

During the twelfth century several cloisters were built in Rome. The most important of these are: (1) that of the church of the SS. Quattro Coronati ; (2) that of the basilica of S. Lorenzo outside the walls ; (3) that of the Cistercian monastery of SS. Vincenzo e Anastasio at the Tre Fontane ; (4) that of S. Cecilia. Of these four the second and third alone are well known. They have the typical simplicity and heaviness of primitive Romanesque : heavy cubic capitals ; plain shafts, usually single, seldom coupled, under the arches ; no mouldings or sculptured or mosaic decoration. The cloister of S. Cecilia is somewhat in advance ; its proportions are less heavy, and the stone-work more careful, but the simplicity remains unchanged ; while the two former structures were erected about the middle of the twelfth century, I would assign this to the second half well advanced. Apparently I am the first to call attention to this interesting cloister and I merely mention it at present, reserving its detailed study for a later occasion. The fourth Romanesque cloister, that of the SS. Quattro Coronati, I have neither seen nor studied in drawings or photographs, but I hear that it is in a good state of preservation and a gem of early work. It would be natural to assume that this cloister was erected when the church and monastery were rebuilt in 1112 by Pope Paschal II. (1099–1118) after being partly destroyed in the burning of the city by Robert Guiscard. In that case it is the earliest in Rome. The reason that the two latter monuments are inedited and nearly unknown is that they belong to nunneries and are, of course, not opened to men except by special permission from the cardinal titular of the church.

The second group of Roman cloisters was, I believe, erected during the first quarter of the thirteenth century; and their style approximates far more closely to that of the cloisters of S. John Lateran and S. Paul than to that of the examples of the twelfth century just cited. The proportions here become more elongated; the columns are in most cases not single but coupled under each arch; the faces of the arches begin to assume mouldings and to develop a frieze above them on the outside; the capitals no longer have the heavy cubic form, but become delicate and often bell-shaped, and begin at times to have a light foliated surface-decoration in a style analogous to the early Gothic foliated forms which were just then being introduced into the Roman Province by the French Cistercian monks from Burgundy, who were erecting monasteries throughout Italy. The principal examples of this style with which I am familiar are the following:

S. Cosimato in Trastevere. This cloister has been known only for little more than a year, since the restoration of the nunnery was begun in order to adapt it to the purposes of an asylum for aged and infirm men. Its arcades were swathed in a mass of masonry. They are now almost completely disengaged, and the cloister is shown to surpass in size all other Roman cloisters, not excepting that of S. Paul. The style is extremely uneven, and I could perceive what seemed to me two periods of construction, not, however, distant in date. The workmanship in general is extremely careless and inaccurate, the capitals often being cut entirely regardless of the size of the shafts. The capitals are transitional from the perfectly plain-surfaced cubic form to the foliated, the greater part belonging to the former, and a few to the latter class. This edifice appears to me to be the earliest of the second group of Roman cloisters, in so far as I am acquainted with them.

S. Scolastica at Subiaco. This cloister shares with that of Sasso Vivo the palm of beauty among the cloisters built by the Roman artists outside of the Eternal City. Subiaco was a favorite center for the artists of the family of Laurentius.^a

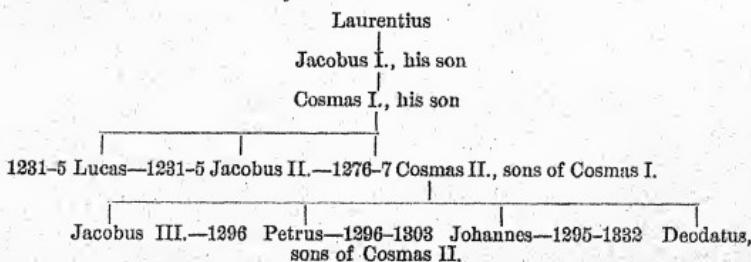
^a For further information and a reference to sources regarding this family of artists see my paper in vol. v., pp. 182-88 of this JOURNAL. The following is the usually accepted genealogical tree of the family school of the artist Laurentius—

At the upper monastery—the Sacro Speco—Laurentius himself worked with his son Jacobus shortly after the middle of the twelfth century, as is shown by an inscription. Then Jacobus began, some years after—probably in about 1210—the cloister at S. Scolastica, the other and principal Benedictine monastery at Subiaco. He finished and signed only one side of it. After his death, probably, the work was taken up by his son Cosmas together with his grandsons Lucas and Jacobus II. The three sides executed by these three artists, though apparently contemporary with the Lateran cloister, are somewhat inferior to the work of their progenitor Jacobus, being less accurate and happily proportioned. The old side has each stone carefully numbered or marked, and this proves, I believe, that every detail was executed in the family workshop in Rome and then shipped to Subiaco, so marked that each piece could be put into its place by the merest tyro. I verified such marks on every block and member belonging to the original work. This system of marking does not appear in the other three sides. The inferior quality of the later work may be partly explained by the fact that Cosmas and his sons were obliged to adhere to the original scheme of the earlier artist and were hampered by this necessity, at a time when their original work was in a more advanced style.

S. Sisto on the Via Appia. After Pope Honorius had confirmed in 1216 the order of S. Dominick he gave him the church of S. Sisto, and the site became famous for the miracle which it is believed he performed there of bringing back to

who were architects, sculptors, and mosaicists. I do not endorse every detail of this tree, and would suggest some changes in it if this were the place.

School of Laurentius: c. 1150-1332



life the young nephew of the cardinal of Fossanova. When the Dominican monks were transferred to S. Sabina, the establishment was handed over to the Dominican nuns, in 1219. It can hardly be doubted that to these years, that is, from 1216 to about 1220, belong both the chapel of S. Dominick and the part of one side which is all that remains of the primitive cloister. The style of this fragment resembles in its simplicity the work at S. Tommaso in Formis, S. Sabina, S. Scolastica, and other so-called "Cosmati" works of the first two or three decades of this century.

S. Sabina on the Aventine. This was the first important establishment of the Dominicans in Rome and its monastery, so far as we can judge from the cloister, the chapter house, and other parts, dates from the period of S. Dominick himself and antedates the year 1221. It is thought that he commenced to build here as early as 1216. The cloister with its 103 columns is the most beautiful of this group. The lightness of the coupled columns, the Gothic type of the foliated capitals, the arch-mouldings, and other details show the influence exercised upon the Roman artists by the Cistercians. If one were to add the mosaic decoration and the sculptured details and vary the forms of the colonnettes, the style of S. John Lateran would be attained.

The monuments forming this group may be arranged in the following order, and if I here give tentative dates it is mainly to express what I believe to be the relation of each to the other in point of time and their relation to preceding and succeeding monuments :

1. S. Cosimato in Trastevere, Rome, 1200-1215
2. S. Scolastica, Subiaco (early part), 1210-1215
- " " (later part), 1215-1235
3. S. Sisto, Rome, 1216-1221
4. S. Sabina, Rome, 1217-1225

The work at S. Cosimato is tentative, and shows an art not sure of itself: it might be placed even a few years earlier than the date mentioned. The two dates given to S. Scolastica apply, the first to the one side built by Jacobus, the second to the other three sides executed by Cosmas and his two sons. I believe the following conclusions may be drawn, without carrying more into details this glance at the monument.

1. During the course of the twelfth century cloisters were built in Rome in a severe and heavy style that cannot serve as the prototype of the works of the thirteenth century, which were not a development from them but very largely a new creation.

2. During the years between 1200 and 1220 or thereabout, there were constructed in Rome cloisters of far greater elegance and slenderness, tending in their proportions, capitals, and other details toward the Gothic idea, and preparing the way for the more fully developed, and artistically more perfect type represented by S. John Lateran and S. Paul.

3. The Lateran cloister appears to have been the first example of the use of stucco-like marble reliefs, of mosaic frieze and mosaic inlay in the columns, and to have also made popular the use of twisted and otherwise varied shafts. All these characteristics it combined with the general forms developed in the best examples of the preceding group.

4. The Lateran cloister was commenced not before 1221, probably between the years 1222 and 1226, and served as a type for other works. In 1230 it was still in course of construction, but was probably finished soon after.

5. It is not a fact susceptible as yet of exact proof, but it is a probable inference, both on artistic and on quasi-chronological grounds, that the cloister of S. Paul was a few years later than that of the Lateran; and that even were it begun at about the same time, it was finished nearly a decade later.

6. It is probable that we should attribute to Vassalectus III. and his father the introduction into cloistral architecture of the mosaic decoration so beautifully characteristic of its style; transferring it perhaps from the church porches on which it had been used for over a half century.

It would be interesting to compare these Roman cloisters with other contemporary cloisters in order to trace reciprocal influences, for one is apt to go astray by keeping within too narrow a field of vision and thus failing to recognize important factors in development. There are the two beautiful examples at Fossanova⁷ and at Monreale in Sicily⁸ with their

⁷ *Journal of Arch.* 1890, pl. V. Its date is 1200-1210.

⁸ GRAVINA, *Il Duomo di Monreale* and other works. Its date is before 1200.

wonderful treatment of variegated shafts; there are such Cistercian cloisters as those of S. Maria di Gradi at Viterbo and one in France, both exhibiting the interesting fact of the identity of works by the same order in two different countries and bearing in their shafts a striking resemblance to the Roman cloisters of the beginning of the thirteenth century. Such comparisons, however, would be out of place in any but a detailed study with accompanying illustrations.

A. L. FROTHINGHAM, JR.

PRINCETON UNIVERSITY,

October 7, 1893.

SOME INSCRIPTIONS FROM THE ORIENT.

During a journey in the Orient in 1889-90, Dr. John P. Peters copied some Greek and Latin inscriptions as described in his paper in this number (pp. 325-334), and he has kindly placed them, together with some field notes, in my hands for publication. A number of them had already been edited. Such as I have not found in any publication consulted are given below.

No. 1. "Inscription on fallen column on old road from Amman to Jerash. Size of letters .067 m."

S M R
E V E R V S
■ E R T ■ A V C
T R I B P O T E S T · II

O I M P · IV · C O S · I
P E R · A E I S E V E R I A ■
M A X I M V M I E C

Imperator Cae]sar

L. Septimius S]everus

P]erti[nax] Aug(ustus) [P(ontifex) M(aximus)]

Trib(unicia) Potest(ate) II[I]

P(ater) P(atriae)] Imp(erator) IV Co(n)s(ul) I[I]

Per Ae[I](ium) Severi[an-

um Ma]ximu[m fecit.

This inscription introduces us to a period of Roman history that is not very fully known. When Septimius Severus was hailed emperor by his soldiers on the Danube, Didius Julianus had been proclaimed at Rome, Clodius Albinus on the Rhone, and Pescennius Niger on the Euphrates. Severus marched upon Rome, put Julianus to death, and hastened to the East against his now more formidable rival Pescennius. He was victorious at the crossing of the Hellespont, and from there pushed on to the passes of Cilicia, where he met Pescennius, defeated and slew him. He remained in Syria for some

time, and finally won some victories beyond the Euphrates and in Arabia, from which he obtained the titles of Adiabenicus and Arabicus. From the absence of these honors in our inscription it would seem that the erection of this monument belongs to the earlier part of the year 195 A. D., to which year it is to be assigned by the titles *Trib. Potest. III.* and *Imp. IV.*, while the eastern victories belong to the same year. The latter part of the inscription has been restored by the assistance of another found at Bostra in the same region and reading as follows (Waddington, *Voyage Arch.* No. 1943, *CIL. ii.*, 91): *P. Aelio Severiano Maximo Leg. Aug. Pr. Pr. Cos. Desig. imm.* This name quite fits the traces of letters in Dr. Peters' copy, and the titles show that Severianus was in command of the district, as they also supply the reason for his being charged with the erection of the monument. Waddington notes (*loc. cit.*) that he was governor of Cappadocia at the commencement of the reign of Marcus Aurelius, having previously been legate in Arabia toward the end of the reign of Antoninus, and that he perished with his forces at the beginning of the war against the Parthians. The last statement is from Dio Cassius LXXI. 2. It is easy to see now that it was a mistake to identify the two. The Severianus of our inscription may be the son of the earlier general.

No. 2. "Jerash. North of city. Burying ground. This is practically complete."

D M
C I V I Z E N O P H I L ^
III LEG III CYR
D(is) M(anibus). Civi Zenophilo iii (?) leg(ionis)
III Cyrenaicae.

Dr. Peters' note seems to forbid restoring MIL before LEG. Perhaps *iii* should be considered equivalent to *Coh. iii*, rather than the sign for centurion multiplied. The modesty of the inscription would argue the humble career of a common soldier, proud though he was of his citizenship. Numerous inscriptions attest the presence of the Cyrenaic legion for some time in this region. Its headquarters were at Bostra (Waddington, *Voyage Arch.*, 1948).

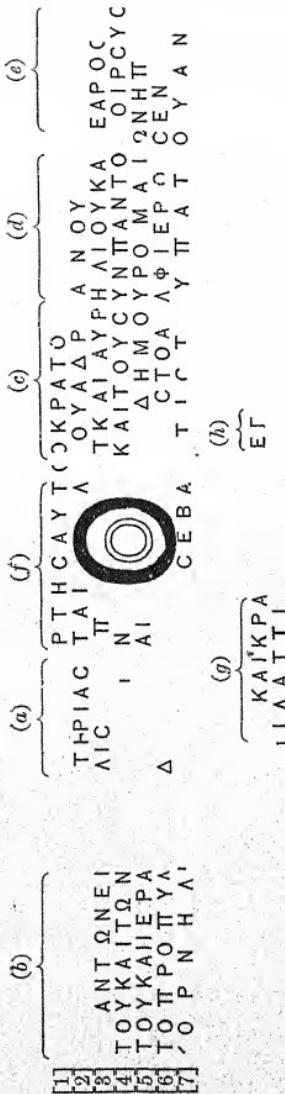
No. 3. Jerash. This inscription has been repeatedly

copied and published, and it has been the subject of no little comment already; but Dr. Peters was fortunate enough to discover an additional fragment which throws new light upon it and reconstitutes the entire form. It is sufficient to refer the reader to Boeckh's *Corpus* (*CIG*, 4661) for the citation of the literature upon the subject. The inscription was written above the arch of the great gateway at the square in the centre of the town, where the two main streets met at right angles. The gateway formed the entrance to a colonnade leading up to the chief temple of the town, and now lies in a mass of ruins scattered in the vicinity. Fragments (*a*), (*b*), and (*c*), were first copied by Burckhardt at the beginning of this century, (*b*), (*c*), and (*d*) by Count Vidua, (*a*), (*b*), (*c*), (*d*), and (*e*) by Count de Berton. Boeckh unites them as follows:

ΥΠΕΡΤΥΧΗΣΚΑΙΩ] ΤΗΠΙΑC[ΑΥΤ]ΟΚΡΑΤΟ[ΡΟΣΤΟΥΚΥΠΙΟΥΗΜΩΝ
ΚΑ]ΙC[ΑΡΟΣΤΑΙΑ]ΟΥΑΔΡ[ι]ΑΝΟΥ
ΑΝΤΩΝΕΙ[ΝΟΥΣΕΒΕΥΣΠ]ΠΤΚΑΙΑΥΡΗΑΙΟΥΚΑ[ΙC]ΑΡ[ΟΣΥΙΟΥΑΥ
ΤΟΥΚΑΙΤΩΝ[ΤΕΚΝΩΝΑΥΤΟΥ]ΚΑΙΤΟΥCYΝΤΑΝΤΟ[C]ΟΙ[ΚΟ]ΥC[ΕΒΑC
ΤΟΥΚΑΙΙΕΡΑ[CCYΝΚΑΗΤΟΥΚΑΙ]ΔΗΜΟΥΡΩΜΑΙΩΝΗΤ[ΟΛΙC
ΤΟΠΡΟΤΥΑ[ΟΝΤΟΥΤΟΚΑΙΘΝ]CTOA[N]ΑΦΙΕΡΩCΕΝ[ΕΤΤΙ - - - K
ΟΡΝΗΛΙ[ΟΥ - - ΤΟΥΚΡΑ]TICT[ΟΥ]ΥΤΤΑΤ[ΙΚ]ΟΥΑΝ - - - - -

Dr. Peters' notes upon the fragments, recorded at the time, are these:

- “(a) Just east of (*c*).
- “(b) Lay close to keystone on south. Full size. Letters not in straight lines across block. Half inscribed, upper part only. Height 1.05 m. and 1.10 m., breadth .76 m. and .71 m. Letters of upper four lines .08 m.; of lowest, .12 m.
- “(c) Broken at top and bottom. Close to keystone to north. Length .80 m. Upper rows .10 m. and .09 m.; bottom row large, perhaps .12 m.”
- “(d) Broken at top. Length 1.08 m. Lying a little below door and east, below (*a*). Upper lines .08 m., lowest line 12 m.”
- (e) This was not copied by Dr. Peters.
- “(f) Keystone, broken off at bottom and at top. Length .82 m. Letters on upper five rows .10 m., on lowest .12 m.
- “(g) Fragment, a considerable distance below former pieces.
- “(h) Fragment, close to (*g*).”



Τηρίας Αντοκεράτο-

[ρος σω]πρόλας Τ. Α[ι]λ[ι]ον 'Αδρ[ι]ανον
'Αγρονε[ρου Κα]στ[ρος Σεβ] Π[ατρός] Π[ατρός] Κα[ταρο]ς μισθίου
αὐγ[τοῦ καὶ τῶν τέκνων αἰτῶ] ν καὶ τοῦ σύνταυτο[ς] οἵκοιν Σ[εβ]-
ασ[τοῦ καὶ λεβᾶς συνελήφτου καὶ δήμου] Ρ[εβ]ματ[ι]ον π[άλιοι]
τὸ προπύλαιον καὶ τάντρη τῷ στοά[ν] ἀφέροντεν [ἐπι]λ
Κ]ορηλ[ιον πρεσβευτον] Σεβ. οὐ πιστρέψα. μέτατον ἀν—

The discovery of the keystone gives the proper clue to the arrangement of the fragments that belong together. Space must be allowed for the boss in the centre, as was not done in previous arrangements, and what remains of the first line shortens and simplifies the formulae. Here also the conditions of fairly symmetrical arrangement on each side the keystone must be regarded. The broken O of (*c*) fixes this fragment as contiguous to (*f'*), as its present position, noted above, requires: (*d*) follows next to the right from position and connection of words, and (*e*) still to the right: (*b*) evidently belongs quite to the left of anything we possess, as shown by the vacant space before its first line, and by its present position. This renders it necessary that a considerable space should intervene between it and the keystone, in order to balance the opposite side. Shall (*a*) be inserted here? Two objections occur. It now lies close to (*c*) on the other side of the keystone, and it was there when Burckhardt first copied it. Again, it was noted by Vidua that the letters were different from the others, and Boeckh admits it with doubt. Dr. Peters' copy of this fragment represents the letters as distinctly smaller than the others. In a recent letter answering inquiries on this point he says: "I should regard the difference of size of the letters in my notebook as presumptive evidence of smaller size in the original. At the same time, if the difference were marked, I wonder that I did not make a note of it. The fact that I copied all of those fragments together, without further note, would seem to show that I did not regard the difference in size, if such there were, as sufficiently marked to preclude the possibility of all belonging together." As the substance of this fragment is desired in the lacuna, I have inserted it with some misgiving. It will be observed that Dr. Peters' copy has recovered a fragment of a letter in the fourth line and another in the sixth where nothing has been given before. The first of these may be identified with T, the second with the A of KAI. This necessitates a slight change from the words supplied by Boeckh, and the space is better filled; (*g*) and (*h*) must be excluded from this inscription. The testimony of the copyists is uniform that nothing followed the line of larger letters. Dr. Peters writes: "I was struck with the fact that certain

fragments were at a considerable, if not improbable, distance farther forward or down in the heap than the others. There was a considerable amount of inscription, apparently, in this immediate locality. I hold it to be quite possible that, besides the great arch inscription, represented in (b), (c), (d), (f), there was another inscription, or there were other inscriptions on the walls." He would arrange the fragments as they now lie in this relative position :

<i>b</i>	<i>f</i>	<i>c</i>
		<i>a</i>
		<i>d</i>
		<i>g</i>
		<i>h</i>

Answering another inquiry he adds, "I would say that to the best of my recollection there could have been nothing above" the first line of (b).

In general, the letters are not regularly spaced, and some unexpected gaps would probably be better filled than is shown by the copies, especially at the junction of the fragments. Furthermore, Dr. Peters dwells on the fact that the lines curved down somewhat from the keystone. It does not seem to me likely that Boeckh's *TIATIKOT* in the last line is probable. I supply *ANΩTII*. at the close on the authority of *CIG*, 4022, 2743, 2878. Date of inscription 147-161, A. D.

No. 4. "Roman milestone beyond Erak, between Erak and Sukhin, on the road from Palmyra to Euphrates. Very much effaced. An inscription of seven lines, of which I could see only these letters in four consecutive lines at the end."

Palmyra was the centre from which the stones on the roads leading out of it were measured, as shown by the inscriptions recorded by Dr. Sterrett along the routes both east and west of the city (*Papers of American School*, III, Nos. 632-686,

648-651). The distance of our stone from Palmyra was such as to justify the restitution of XVIII. M. P. (*Millia Passuum*) in the last line. The stones read by Dr. Sterrett to the east of Palmyra belong to the time of Constantine; but those to the west are earlier, and two of them, No. 649 and 651, fall in the reign of Septimius Severus, and were set up *sub Ventidio Rufo*. The eastern route may also have had an earlier series of stones than those found by Dr. Sterrett. This conjecture receives some support from the final M. P. of our inscription, which does not occur on those previously read. This leaves open the possibility that *sub Aelio Severiano Maximo* may have stood in the second and third lines of the present inscription. It should be added, moreover, that Dr. Peters remarked that the stone differed considerably from the others except one already recorded, bearing a greater resemblance to a column.

No. 5. "Kurietain (North of Damascus). Stone built into the side of a doorway in a private house. The beginning of the inscription buried. Copied under difficulties in a very dark place. Will not warrant it as an exact facsimile. Was principally concerned in getting the letters."

XOKTOYZA
ONTΩNXεNAB
TOYOTYAPT

No. 6. Broussa, Yer Kapu. The inscription is to the right of a cross which ends below in a projecting rest and stands upon a stepped pedestal. Above the cross is written \overline{IC} and below the right arm in the angle $K\delta$. Some distance above the main cross is a second cross with its four arms of equal length.

The surface of the inscription is rough and the letters difficult to follow in places. Dr. Peters' copy is as follows:

IeBoHΩIToNKON
ΔδλαP△τ△ΙΙF
X△
ONKEδΜPPTO

From a rubbing, \overline{Ie} of the first line may be corrected to KE, and K to C; P \triangleleft of the second may possibly be a broad N, and X \triangleleft for NI] KA. According to this we may read

$I(\eta\sigma o\underline{\nu})\varsigma$ $K(\bar{\nu}ri)\epsilon \beta o\bar{\eta}\bar{\delta}i \tau\bar{o}n \sigma\bar{o}n$
 $\nu i] n\ddot{a}$ $\delta o\bar{\nu}l\bar{o}n \tau a\bar{\pi}[\epsilon i\nu-$
 $\nu i\kappa]\ddot{a}$ $\bar{o}n \kappa\bar{e} \bar{\alpha}ma\bar{r}t[\omega\bar{l}\bar{o}n.$

Or following the copy somewhat more closely:

$K(\bar{\nu}ri)\epsilon \beta o\bar{\eta}\bar{\delta}i \tau\bar{o}n \sigma\bar{o}n$
 $\delta o\bar{\nu}l.$ $\bar{\sigma}ra \tau a\bar{\pi}[\epsilon i\nu-$
 $\bar{o}n \kappa\bar{e} \bar{\alpha}ma\bar{r}t[\omega\bar{l}\bar{o}n.$

Further possibilities may be left to others. A proper name is expected, but not always found.

No. 7. Broussa, Hissar Kapu. Broken and chipped mass of marble in road.

P
N

H A
C T A T I I M P Θ
E Ω N Π O A T Θ

COLUMBIA COLLEGE,
NEW YORK.

A. C. MERRIAM.

In all the Greek inscriptions above, Π should not have the upper bar passing beyond the verticals, and E should be circular in form.

REVIEWS AND NOTICES OF BOOKS.

CLASSICAL ARCHAEOLOGY.

A. J. EVANS. *Syracusan "Medallions" and their Engravers in the Light of Recent Finds, etc.* Quaritch.

In this work, which is a reprint of an article from the *Numismatic Chronicle* of last year, Mr. Evans confines his attention to a small section of the coinage of Syracuse, viz., from B. C. 440 to 360; it is, however, an important section, as it embraces the period of issue of those fine dekadrachms, or medallions, which have always been the admiration of numismatists and archaeologists, as also of many other coins of lesser denominations, which for beauty of design and excellence of workmanship have never been surpassed, perhaps, not equalled. The coins of this period must be considered in the light of a reissue, the first issue being that of the famous Damareteia, struck in B. C. 479 to commemorate the victory of Gelon over the Carthaginians at Himera in the preceding year.

The treatise was suggested by a very remarkable find of Sicilian coins by a peasant in 1890, near Santa Maria di Licodia. Sixty-seven of the eighty coins in this find were Syracusan dekadrachms, commonly called "medallions," the other thirteen pieces tetradrachms of Syracuse, Messana, Selinus, Motya, and Athens. Mr. Evans was the first in the field, and secured some of the more important pieces for his own collection.

The dekadrachms were, with one exception, all the work of the well-known Syracusan artists Kimon and Evainetos; but it is this one exceptional piece which forms the principal theme of this monograph, the engraver of which, for want of more definite information, Mr. Evans styles the "New Artist." This new medallion presents so many varieties from those by Kimon and Evainetos, and is of such different workmanship, that Mr. Evans had no difficulty in at once coming to the conclusion that it must be the work of some unknown hand and that he had met with a treasure.

The date to which Mr. Evans attributes this fresh issue of the medallion pieces is that of the institution of the Assinarian games in B. C. 412.

The artist employed to engrave the dies for the first pieces was

Kimon, who at that time appears to have been chief engraver at the mint of Syracuse. The coins are usually signed. To n. c. 410, two years later, Mr. Evans assigns a fresh issue of the medallions; these are also by Kimon, but they can easily be distinguished from those of the earlier issue by a slight change in style, but not in type. From b. c. 410 there is a break in the issue of these larger pieces, but with the accession of Dionysius I. in b. c. 406, the activity of the Syracusan mint is revived, and it is to this date that Mr. Evans assigns the most important production of the medallions. There are three distinct series. One is by Kimon, who adheres to his second type; the second is by Evainetos, and the third is by the "New Artist." Evainetos and the "New Artist" depart from the older types, and, so far as the obverse is concerned, are *in accord*; but when we examine the types of the reverse, then we find no longer this uniformity of type. The medallions of Evainetos are usually signed, his name being given, with but one exception, in an abbreviated form; but in the medallion of the New Artist the signature is doubtful.

The large issue of the medallions shows that they were intended for general circulation, and that they were not merely struck as rewards or prizes at the games, especially as Mr. Evans proves that their issue was fairly continuous for a period of over forty years.

In the two chapters on "Kimon and his Works" and the "Career and Influence of Evainetos," the author has furnished some important data of these artists, derived mainly from numismatic productions.

To this treatise Mr. Evans adds an article, republished from the *Numismatic Chronicle* of 1890, on "Some New Artists' Signatures on Sicilian Coins," as it helps to elucidate many points in the first one. In this Mr. Evans first published his discovery of an earlier artist named Kimon, whose signature occurs on a tetradrachm of Himera, which cannot be assigned to a later date than b. c. 480. He naturally connects this early Kimon with the later one at Syracuse, and gives to them the relationship of grandfather and grandson.

The monograph is illustrated by ten excellent autotype plates, without the aid of which it would not have been possible to appreciate fully the force of the author's arguments, or to follow him in his minute comparisons of styles and types.—*The Athenæum*, September 10, 1892.

A Catalogue of the Greek Coins in the British Museum.—W. WROTH.
Mysia. R. S. POOLE. Alexandria and the Nomes. Printed for
the Trustees.

The first of these books differs from the second in covering a very small district, and contains nothing but the coins of Mysia proper, not

even comprising those of the Troad. In Mysia by far the most important coins are the great mass of Cyzicene staters, which formed for so long the main gold currency of the northern *Ægean*. The Museum, though it owns a fine series of Cyzicenes, is rather weak in the last issues of the mint, of which it possesses only six or seven varieties.

After the issues of Kyzikos, the most important pieces included in this volume are the beautiful gold staters of Lampsakos—a series whose richness and variety is only just beginning to be appreciated. Twenty years ago hardly any Lampsacene gold money was known, and in old collections it is conspicuous for its absence. But of late several rich finds have enlarged our knowledge of these splendid coins; and Mr. Wroth is able in his preface to give a list of thirty-one different types. Of these, only nine are in the Museum.

Among the other Mysian coins points of interest are not very numerous. Mr. Wroth ascribes the little gold and silver diobols of Pergamon to the year 310 b. c., when Herakles, the son of Alexander the Great, was proclaimed king. It is curious that, if this be the case, no regal title was placed on the money, but only the name of the Pergamene state. It seems more consistent to place the coins a few years earlier, and suppose they were struck while the cities believed themselves to be independent.

Of the vast Alexandrian series which forms the subject of Professor Poole's last contribution to the Museum Catalogue, there are no less than two thousand six hundred varieties described in the thick volume which he has just produced. The series on the whole is not very interesting; they present us, however, with a very curious collection of representations of Græco-Egyptian gods, and Professor Poole is able to use them as the text for a very interesting commentary on the religion of Egypt in Roman times. The ancient Egyptian mythology was profoundly modified by Greek influence during the time of the Ptolemies, and Professor Poole points out that the general rule in religious matters was that "Greek types were not affected by Egyptian, but Egyptian by Greek: when a type shows a double origin we find that the Egyptian form is Hellenized and not the converse." Among these coins of Alexandria there are some purely Greek types, where no Egyptian god is in question.

In his thirty-two pages of illustration Professor Poole has gone on the principle of arranging the coins, not under Emperors' reigns, but under their reverse types, grouping all representations of Zeus or Harpokrates, or the Alexandrian Pharos together, irrespective of date. This works admirably for the history of the development of

types, but makes it more difficult to follow the general history of the rise and decay of the Romano-Egyptian coinage.

The phototype illustrations are excellent, and also given in numbers which far exceed the proportions of plates allowed in any official catalogue of any foreign State collection.—C. OMAN, in *The Academy*, July 30, 1892.

J. H. MIDDLETON. *The Remains of Ancient Rome*. London and Edinburgh : Adam and Charles Black, 1892, vol. i. pp. xxxiii, 393 ; vol. ii. pp. x, 448.

These volumes constitute a revised and greatly enlarged edition of Professor Middleton's valuable one-volume work entitled, *Ancient Rome in 1885*, reissued with an added chapter as *Ancient Rome in 1888*. The present edition contains two-thirds more pages than the previous one, and these additional pages are closely packed, not only with information about recent discoveries, but with further details about monuments previously known. Especial attention is paid to the study of Roman building materials and methods of construction ; perhaps there is no existing work in any language which gives an account at once so full and so true of the technique of Roman architecture.

On this point Professor Middleton advances two doctrines of great importance, and at the same time decidedly revolutionary. One is with regard to the constructional importance of baked brick in Roman masonry. English, French, and German authorities, although recognizing the enormously greater importance of concrete, have been accustomed to regard the brick facings, relieving arches, bonding-courses, and ribs so elaborately inserted into concrete constructions as contributing an essential element of strength. Professor Middleton teaches that the real strength of all these structures was in the concrete and that the bricks were useless. The only concession that he makes is that the bonding courses and the ribs may have been of some advantage while the concrete was setting.

The other doctrine, advanced by Professor Middleton, which opposes received opinion, is the antiquity of the use of lime mortar in Roman masonry. In opposition to the accepted belief that lime mortar was introduced at Rome in the Republican period, he alleges that "mortar was introduced at a very remote period both in Greece and in Rome" and that "the use of mortar in Roman stonework is a sign of early rather than of late date" (i. 37-38). Professor Middleton may be right, but the proofs advanced for this statement do not appear absolutely convincing.

It appears that Professor Middleton's historical statements and his interpretations of ancient texts are often unwarrantably careless; and even his descriptions and restorations of buildings are not always of uniform completeness and certainty. Nevertheless, these two volumes embody more information about the topography and the architectural and engineering works of ancient Rome than exist in moderate compass anywhere else, while they contain many important original contributions to the science of archaeology. There are other books on Rome more methodical in arrangement and more learned; there is none, on the whole, so valuable.—F. B. TARBELL, in *Classical Review*, 1892, 415.

HENRY COHEN. *Description historique des monnaies frappées sous l'empire romain, communément appelées médailles impériales.* Second edition, continued by M. FEUARDENT. Eighth and last volume. Paris : Rollin & Feuardent, 1892.

The second edition of Cohen's great work has been completed and is now in the hands of all. It is difficult too highly to appreciate this work, which renders daily service to all numismatists and the principal merit of which is being complete, giving exact descriptions and containing no false pieces. Collectors also appreciate the market value given for each medal, in connection with its description. That which distinguishes the second edition, which from vol. ii has become the work of M. Feuardent, and renders it far superior to the first, is the number of new pieces which are to be found in it; it is a collection of coins, of gold, silver, copper, and bronze and of each reign, in a single alphabetical series; finally there are inserted, in the middle of the text, numerous plates reproducing the more rare and more interesting coins. It is only to be regretted that the printer did not devote greater care to the making of the plates.

The eighth volume contains beside the conclusion of the description of coins, as far as Romulus Augustulus, the dies, then the very elaborate and minute tables, which must have cost M. Feuardent a long effort of most patient study.

The chronological tables of all the dated coins, year by year between the year 75 B. C. and the year 476 of our era, render daily service to those who are interested in questions relative to Roman history. For the numismatists more especially is meant the table of inscriptions on the reverse of coins, for the eight volumes together and covering even the colonial coins: arranged in alphabetical order, it assists the less expert to fix promptly the attribution of any coin which falls into their hands, even when the face is obliterated. We are grateful to

M. Feuardent that he has, not far from completion, another effort to worthily crown this descriptive collection, one of the greatest that an author has ever undertaken.—*Revue Numismatique*, 1892, p. 508.

CHRISTIAN ARCHAEOLOGY.

J. J. BERTHIER. *La Porte de Ste. Sabine à Rome*. Friburgi Helvetiorum. Typis consociationis Sancti Pauli, 1892.

The author has detached this important study from the *Histoire de l'Église et du Couvent de Ste. Sabine à Rome* prepared by himself. This famous door has often been described; but the numerous works prepared until now have been too brief; one should take up the questions one by one which the monument raises, questions of date and of authorship, and solve them; then describe the eighteen bas-reliefs which have come down to us. Such is the very rational division of the memoir of P. Berthier.

Almost all the possible dates between the fifth and the twelfth centuries have been assigned to this monument; in the absence of all historic documents, we have only examination of the monument to guide our research. The present author demonstrates in a most convincing manner that the style of all the panels, except four, prevents their being attributed to any other epoch than that of the foundation of S. Sabina—the fifth century.

This question settled, it remains for us to determine the artist by whom these bas-reliefs were executed. In P. Berthier's opinion he was a Greek. In the fifth and sixth centuries Rome was more than ever under Oriental influence; the Aventine, in particular, at that epoch seems to have been a favorite abode for the Greeks of Rome. Finally the Greek phrase engraved upon one of the panels, which is not a signature or a conventional text, but which has evidently been arbitrarily chosen by a Greek, seems to confirm the author's hypothesis. However, he himself declares that from this point of view it is not yet an absolute certainty.

The second part, which embraces the description of each of the eighteen panels, contains a detailed study and an abundant commentary on the interesting scenes sculptured by an artist of great talent. The author examines for each bas-relief the opinion of his predecessors, adopting or refuting after careful discussion.

This beautiful memoir makes us look forward with eagerness to the publication of the *Histoire de Ste. Sabine*.—F. S. in *Mélanges d'Archéologie et d'Histoire*, December, 1892, p. 504.

ANDRÉ PÉRATÉ. *L'Archéologie Chrétienne. Bibliothèque de l'Enseignement des Beaux Arts.* Quantin : Paris, 1892.

This excellent outline studies in turn the catacombs and their paintings, the basilicas and their mosaics, the miniatures, the sarcophagi, the diptycs, and other small objects. Too much minute detail lessens the interest : M. André Pératé avoids it. Too many general considerations upon the nature and origin of Christian art chills the interest : M. André Pératé, in this regard, is most sober.

Christian archæology is a well-constituted science and far advanced. By each page of this book M. Pératé makes us feel this, rarely proclaiming it. It is instructive without being didactic. He exercises remarkable discretion, evoking the curiosity without appearing to solicit it, suggesting a multitude of associations of ideas or images, without ever imposing them ; and as he confides to the reader the care of continuing the thought, of resuming or of concluding, he always inspires a desire to do so.

The exigences of the subject often make repetitions necessary, but they have been managed with such deftness as to prevent their becoming tedious. Finally the text of M. Pératé, never obscure, is rendered more intelligible by graceful illustrations. This manual is at the same time agreeable for reading and valuable for consultation, two qualities which too often exclude each other.

Whatever may be the work of art that he is studying—painting, mosaic, sarcophagus, or miniature—M. Pératé always searches, and invites us to search with him for those portions of the work borrowed from the ancient artistic traditions of paganism, and for what it contains that is new, original, and specially Christian. If we consider the processes, we see that the symmetry in the decoration which characterizes the sculptor of Christian sarcophagi, is in exact agreement with the ancient traditions. If we consider the motives, we see that many which are pagan exist by the side of those which Christianity introduced. M. Pératé illustrates both of these points.

The processes are ancient, and certain motives also ; but the inspiration is new ; here lies the originality of Christian art. It was not the Old and the New Testaments alone which gave this inspiration ; we must look to other sources as well : first, the apocryphal gospels or other writings of equal value ; second, the works of the early fathers which possessed a certain popularity ; third, the ordinary Christian prayers, as illustrated in the comparisons established by M. Le Blant between the funeral liturgies and certain representations on the sarcophagi. It is only by recalling certain passages of the Bible and of the liturgies, that one can understand the mystic signi-

fication of the Good Shepherd, the Lamb, the vase of milk, and the fishes ; and the actual teachings of the Church laid down in these early books explains the ancient representations of the catacombs.

Backed by such a technique and sustained by such inspirations, the Christian art, of which Mr. Pératé develops the history during about six centuries, was more symbolic before the Peace of the Church, more rich and more complete after that peace. The art of the catacombs does not represent the sufferings of Christ ; the passion and the crucifixion do not appear until the fifth century. Nor does it represent the sufferings of the martyrs. In fact the art of the earlier catacombs before the Peace of the Church did not know the solemn and triumphal representations of Christ giving the law or of Christ as judge ; still less does it exhibit the grand scenes from the Apocalypse.

With the symbolism with which it was familiar the Christian art of the primitive epoch easily represented, under cover of biblical allegory, the stories and teachings of the New Testament ; Moses striking the rock, for example, represented St. Peter. When art became less exclusively symbolic, it did not on that account neglect the biblical scenes that it had been accustomed to represent ; easily combining the symbol, which it preserved, with the thing symbolized, without further concealment, it conceived those majestic compositions which unfolded before the eyes of the faithful the parallelism of the Old and New Testament.

This parallelism, though very frequent, did not become a rule in any measure. Very often, in the second period of Christian art, we find representations sometimes still exclusively symbolic, sometimes purely historic without any symbolic significance, as biblical scenes chosen and distributed haphazard. But whatever may be the epoch at which we look, the habitual preoccupation of this Christian art is always, following the expression of St. Gregory, to give to the faithful a "catechism in images." Decoration throughout had but one aim : its purpose was to instruct and to recall to the mind, through the eyes, both story and doctrine.—GEORGES GOYAU, in *d'Archéologie et d'Histoire*, December 1892, p. 494.

W. F. GREENY. *Illustrations of Incised Slabs on the Continent of Europe.* Norwich : Goose & Co.

The present volume is a companion to one published by the same author in 1884, illustrating eighty "Monumental Brasses on the Continent of Europe." This, though somewhat smaller in size than the book on brasses, contains photo-lithographs of as many as seventy-one rubbings and tracings of the slabs themselves. It is surprising, see-

ing what splendid monuments some of these slabs are, and what a number of them has survived, that no work on the subject has hitherto appeared. The slabs are of a much simpler character than the brasses; this is mainly due to the greater ease with which metal can be worked and ornamented.

The series illustrated ranges in date from the middle of the twelfth to the end of the sixteenth century, and comprises thirty-five Belgian, twenty-five French, seven Swedish, and four other examples. The dates of the four examples assigned to the twelfth century seem too early by far, as heraldic and other evidence will show.

In the case of slabs of the thirteenth century, Mr. Creeny is on safer ground, for many of them are dated; of these there are twenty-six fine examples commemorating ecclesiastic, military, and civil personages. Three slabs of this century deserve special notice. The first of these, now in the Ghent museum, was found in a canal near Ghent, where, with others, it had formed the flat bottom of a sluice. The device represents an embattled gatehouse with grated entrance, surmounted by a smaller tower and two figures in mail, one with a cross-bow on his shoulder, the other sounding a horn. The principal lines are filled in with color, giving a very unusual yet not unpleasing effect to the composition. The second slab represents a man hawking; and the third is a charming memorial of Hugues Libergier, the builder of the destroyed church of St. Nicaise at Rheims.

Of the fourteenth-century slabs, several are noteworthy for their richness, as that of an abbot at Ghent. The military figures of the earlier part of the century usually have emblazoned ailettes and mail gauntlets slipped off the hands and hanging from the wrists; the shields are of moderate size and slung round the waist. Besides affording interesting examples of costume and armor, the slabs of the thirteenth and fourteenth centuries exhibit an excellent series of canopies. These are at first of simple character with plain side shafts, and sometimes panelling and roofing above. About 1250, angels with censers are often introduced. At the very end of the thirteenth century panelled buttresses or pinnacles appear at the sides, and in such examples these are often filled with niches containing images.

The selected examples of the fifteenth and sixteenth centuries show a much greater variety of design than the earlier slabs. The first half of the sixteenth century introduces skeletons and miscellaneous subjects generally, such as a picture of the Entombment at Rome and a grand slab with armorial insignia from Venice. Of Mr. Creeny's plates it is impossible to speak too highly. They have been repro-

duced by photo-lithography by Mr. Griggs from rubbings and tracings of the slabs themselves, judiciously touched up in places, but in no way "restored."

The descriptions that accompany the plates are sometimes far too short, although this is partly compensated for by the excellent plates, which speak for themselves.—*Athenaeum*, November 12, 1892.

THE RENAISSANCE.

LEON PALUSTRE. *L'Architecture de la Renaissance*. Paris: Quantin.

This volume is remarkable for a rare combination of good method and knowledge of detail, enlivened by a wise use of general views, which are here and there made to do their proper service to the reader as landmarks. The first and second books, which deal with Italy and France, are, as one might expect, the most suggestively handled and the fullest in matter. The third, which embraces the rest of Europe, is also good, as far as it goes, but it does not go far enough, and, compared with the complete and workmanlike chapters which precede it, has a somewhat insufficient and perfunctory air. Yet so clear is the writer's conception of his subject as a whole that, in spite of the comparative slightness of the concluding book, the student never ceases to feel that he is really reading something of the history of nations, as well as the story of the great series of civil and ecclesiastical monuments which succeed each other in M. Palustre's pages.—*Athenaeum*, October 1, 1892.

ÉMILE OLLIVIER. *Michel-Ange*. Paris: Garnier Frères.

LUDVIG VON SCHEFFLER. *Michelangelo*: eine Renaissancestudie.

Altenberg: Geibel.

GABRIEL THOMAS. *Michel-Ange, Poète*. Paris: Berger-Levrault.

The first two of these authors, MM. Ollivier and von Scheffler, give us almost opposite views of Michelangelo; one presents us with a reactionary Catholic, the other with a Neo-Platonist. M. Gabriel Thomas, who is last in the field and makes more modest pretensions, takes Platonism for granted, and devotes himself to a sympathetic (if not very searching) little essay upon the Platonic tradition—as he deems it—on Italian erotic poetry, from Dante's time to that of the great sculptor who in many respects reflected him. Thus bluntly stated there is nothing very surprising in any of these views: in fact, M. Ollivier's is curiously old-fashioned in the way it leaves the Renaissance out of account; but Herr von Scheffler in reality goes further than any previous critic. Some of his conclusions may require

modification, and there may be tendencies and influences for which he has not sufficiently allowed ; his book is none the less scholarly and suggestive—a genuine contribution to the study of the Sonnets. According to his view the Sonnets and madrigals echo the life ; they are Platonic, naturally. What of the Medici tombs, of the Sistine chapel, the Doni Madonni ? Platonic all, says Herr von Scheffler. "Michelangelo ist Christ und Heide, Italiener und Hellener" (p. 222) ; but the dominant note, which alone could bind together such discordant strains in him, is Platonism. He sees in the Florentine artist the Greek faculty (pre-eminently Plato's) of personifying abstractions, of lodging them, so to speak, in concrete objects.

Then we come to painting. In his eleventh chapter Herr von Scheffler considers the decoration by the light of the Sonnets. It would certainly have been better to have viewed them as the painting of a sculptor rather than of a rhyming philosopher ; but in spite of that he gets much closer to the *vraie vérité* than M. Ollivier.

Here M. Ollivier gives another reading—the theological. In a very lengthy chapter, fortified with rather labored eloquence and frequent citations from the Old Testament, St. Augustine, Dante, and Milton, he expounds the orthodox, exoteric view of the series. Plato and the Renaissance drop out of sight ; we are in the fourteenth century with Orcagna, Simone Memmi, and the Lorenzetti brothers.

True, when he was commissioned to treat of the stock subjects of "creation" and the symbolical events of the Old Testament story, while he clung in the main to the traditional lines of Orcagna, della Quercia, and Masaccio, he colored them with his own peculiar temperament, modified, but not directed by the spirit of the age. But let us inquire what that peculiar temperament was. M. Ollivier has been at the pains to discuss it through five hundred pages, and it is only fair to consider what he makes of it. A study of a great artist is worth nothing if it is not critical. Michelangelo the poet does not, apparently, exist for M. Olliver, but there remains Michelangelo the sculptor-painter ; and here, in spite of general enthusiasm to which it is impossible to refuse our sympathy, it cannot be denied that his predilections for a certain pronounced school of thought have rendered his work practically valueless. You cannot safely disregard one entire side of a man's nature if the object is to give a complete picture. M. Ollivier is, to be plain, unequipped for æsthetic criticism, because he sets out with two remarkable preconceptions that, other things being equal, moral worth connotes artistic excellence ; and, secondly, that you can read off a picture as categorically as a proposition of Euclid. It is not hard to see how he brought them to bear upon the painter of his

choice. He admired the work but he *studied* the man. He came to the conclusion that the man was the strongest Italian since Dante ; he went to the artist for corroborative testimony to identify him as a Dante of the chisel. A Catholic himself, he found that his hero was a good churchman of the fourteenth-century type ; he turned to the "Last Judgment" and the roof of the Sistine, and found justification by works.

Herr von Scheffler with finer instinct has gone to the Sonnets, to find for us the real Michelangelo. Their very defects have helped him. The power of the thought enclosed has often overmastered the true artistic feeling for form ; the expression is now and then crabbed and abrupt ; but how vigorous, how searching the thought is !

Michelangelo loved man for the spark of divinity he could see within him. But he loved him also for his aesthetic tangible beauty ; and here he was much under the influence of the Renaissance spirit, which made art and the philosophy of life itself epicurean and selective. It saw in every phenomenon a distinct, recognizable aesthetic quality ; Botticelli could paint with the same unction Madonna and Aphrodite, and Michelangelo could conceive the Doni "Holy Family" as neither Christian nor definitely pagan, having his imagination stirred purely by the artistic significance of the subject ; such seems to have been his temperament.—MAURICE HEWLETT, in *The Academy*, August 20, 1892.

NATILIS RONDOT. *Les Potiers de Terre Italiens, à Lyon au Seizième Siècle.* Lyon.

Although it has long been known that during the sixteenth century many Italian workers in various trades had settled themselves at Lyons, and among them potters from the renowned centres of that industry in their native country, no sufficiently definite investigation of their history or of their productions had been undertaken and accomplished. M. Rondot, in the present volume of 160 pages, amply and well illustrated with heliographic plates, gives a most careful investigation of documents and every evidence that could throw light upon the subject, making a thorough success of his work.

In his introductory pages M. Rondot shows how the enlightened authorities of Lyons encouraged the immigration of artistic workmen in every department and from every country during the fifteenth and sixteenth centuries. Flemish, Italian, and other able foreign artists settled there, and among them potters from the Tuscan, Umbrian, and Faentine *botteghe*, by whom, it would seem, the stanniferous enamel was introduced.

In his first chapter he glances at the subject of the introduction of the tin enamel into Italy and Europe. He then shows that although Italian wares were known in France, the method of their production does not seem to have been acquired until Italian workers established themselves therein. By the beginning of the sixteenth century a number of Italian potters had established themselves in France, by whom a new and greatly improved class of wares was made by the use of stanniferous enamel.

Later in the century other Italian potters were established at Lyons, and of them and of their portable works we have more exact record. The enamel of these potters was of superior whiteness and delicacy ; and their ware, as it improved in quality, became the main staple of the factories.

It is interesting to know that a single native artist learned the trade and established himself at Nîmes, in 1548, for the production of ordinary wares ; some of his painted pieces, decorated in Italian style, are still preserved ; of these M. Rondot gives a careful description and illustrations. It is unfortunate that of the production of the earlier Italian potters we have but one recognizable specimen, a pavement in Notre Dame de Brou. However, there are certain somewhat rudely painted *istoriati* pieces in the Louvre and elsewhere, bearing titular inscriptions in bad French, but, unfortunately, no mark or initial of fabric, which are assigned by M. Darcel and others to French potters : and there can be no doubt that M. Rondot is justified in ascribing them to the potters at Lyons working under Italian directors. Of all known to M. Rondot he gives accurate descriptions, and many well executed heliotype illustrations by Dujardin.—C. D. E. FORTNUM, in *The Academy*, January 28, 1893.

DE LA TREMBLAYE. *Les Sculptures de l'Église Abbatiale de Solesmes (1496-1553).* Solesmes : impr. Saint-Pierre, 1892.

The sculptures of Solesmes are among the most beautiful and most celebrated in France. They adorn the walls of two chapels and form two groups of different epochs and unequal dimensions. The first, the Entombment of Christ, bears the date 1496 ; the second, the Death and Apotheosis of the Virgin, was finished in 1553, but must have required a number of years of work, for we seldom encounter an equal profusion of figures and ornaments. Numerous and important works have been published upon these remarkable monuments ; the makers of hypotheses upon this rich material have not been few.

Research was greatly increased after Guéranger, in 1846, published his *Essai Historique sur l'Abbaye de Solesmes, suivi de la description de l'église abbatiale, avec l'explication des monuments qu'elle renferme*, in

which he gives a clear explanation of the scheme of the prior Brugler which the artists were charged to carry out in the sculptures of the chapel of the Virgin. It was not until 1874 that the work of M. Cartier, *Les Sculptures de Solesmes*, appeared, which attributed the Denial of Christ to Michel Colombe and the chapel of the Virgin to Franz Floris. After this came a number of noteworthy publications, almost all offering different solutions. Dom de la Tremblaye does not pretend to offer a new solution; his aim is more modest and perhaps more useful. He proposes to publish the exact state of the question upon the origin of the groups of Solesmes, stating clearly the various hypotheses up to the present day, discussing them thoroughly and pointing out the degree of probability or of seeming certitude of each of them.

The author does not stop here; on account of difficulties of technique the sculptures of Solesmes have never been reproduced in a sufficiently complete manner to be appreciated by those who have not seen them. In the present work, each of the principal groups and personages has been given photographic reproductions taken at different points of view and of various sizes.

The first group, the author believes, with M. Léon Palustré, to belong to the French Renaissance and to be the work of Michel Colombe and his pupils.

As to the chapel of the Virgin, assigned by M. Guéranger to Italian sculptors, by M. Cartier to the Fleming Franz Floris; in the absence of certainty, the author attributes it to two Angevin sculptors, Jean des Marais and Jean Giffard, who in architecture were associated with the illustrious Jean de Lespine. These conclusions appear plausible enough, at least as far as the first group is concerned; but we must not forget that these are only hypotheses, which might be completely reversed by the discovery of a positive document.

The attribution of the chapel of the Virgin to the Angevin artists appears still very problematic. It would not be difficult to furnish arguments in favor of other sixteenth century artists, at least equal in value to those advanced for these. The beautiful heliogravures of Dujardin, which render perfectly the excellent plates of the author, help to make this work the one genuine monument to the sculptures of Solesmes.—CH. DE GRANDEMAISON, in *Bibliothèque de L'École des Chartes*, 1892, LIII. p. 476.

DAVID MACGIBBON and THOMAS ROSS. *The Castellated and Domestic Architecture of Scotland*. Vols. iv. and v. Edinburgh: David Douglas.

These two volumes complete the extensive and beautiful work of

the authors upon the Castellated and Domestic Architecture of Scotland. Its small beginnings arose in a series of papers prepared from time to time for the Edinburgh architectural association. The materials accumulated in this way were gradually expanded till the scheme was conceived of producing a work which should trace the historical reference of the various phases of architecture that have prevailed in Scotland, and "define and explain the different styles of building adopted at different periods from the twelfth century till the revival of the classic in modern times."

Opening, for comparison, with a sketch of English and French domestic architecture, based upon Clark and Viollet-le-Duc, the authors in their first volume proceed to describe the castles of Scotland under four periods. Their earliest period is coincident with the thirteenth century and embraces structures founded during the prosperous reigns of Alexander II. and III., roughly equilateral in plan, with strong lofty walls frequently connected by round or square angle-towers.

In the second period, comprising the fourteenth century, we have a time when Scotland was suffering from the effects of the English invasion of 1296. The square or oblong tower, familiar to the Scots during their sallies into England, then became the model of their national architecture.

In the beginning of the third period, 1400-1542, we have castles where the keep is larger than before, and has towers attached, for defence and in order to furnish additional apartments. The first traces of the Renaissance become visible in the rough imitations of classic sculpture introduced as enrichments.

During the fourth period, 1542-1700, many causes, political and other, operated to produce a break in the continuity in Scottish architecture. In this period, too, artillery had become a thoroughly effective agent in warfare, and when accordingly the nobility abandoned the idea of building strongholds capable of resisting prolonged sieges, they devoted their attention to the erection of commodious and seemly dwellings, in which the elements of massiveness and strength give place to those of picturesque and fanciful ornamentations. Each period is furnished with a number of examples and illustrations.

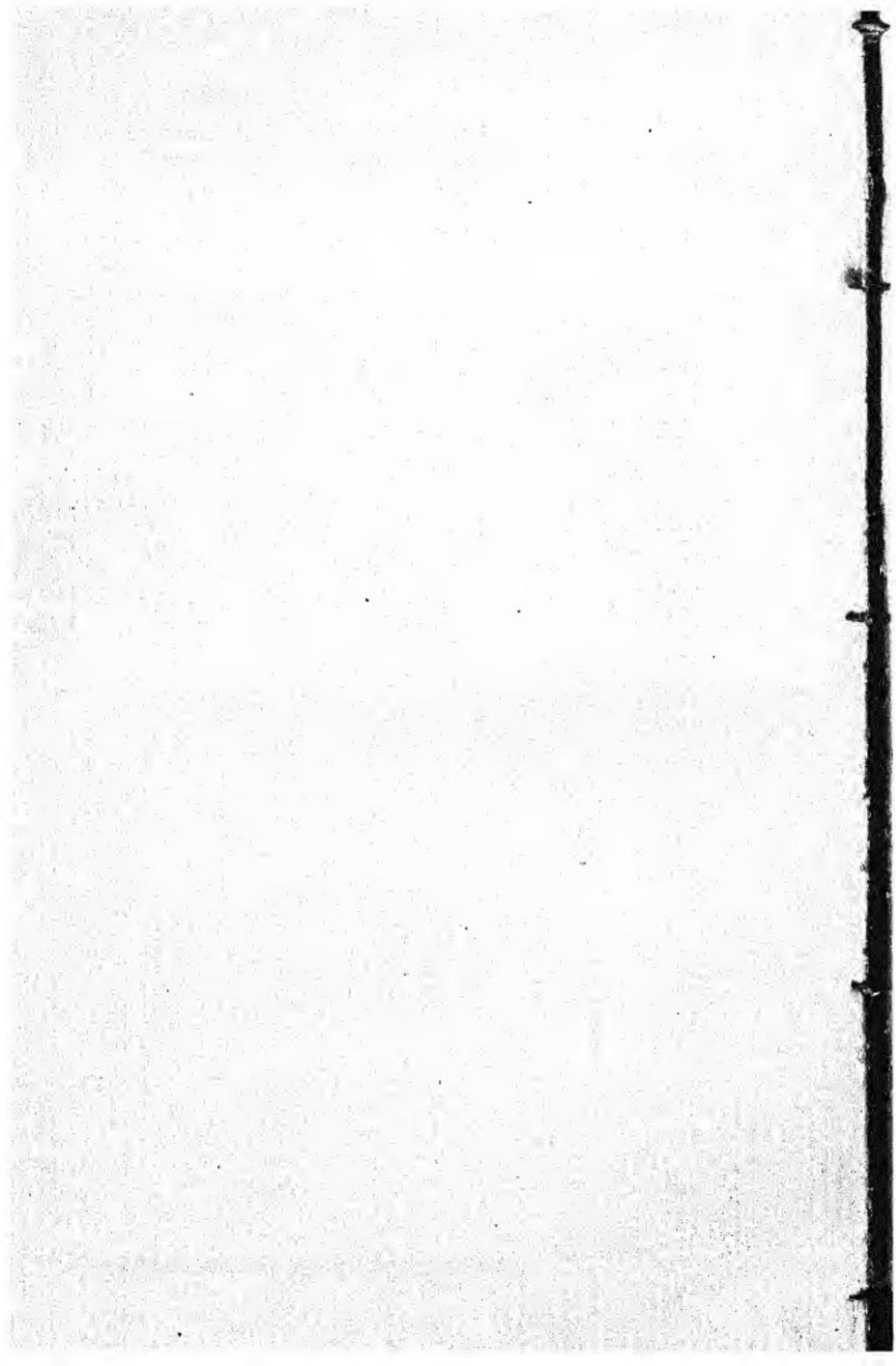
The third volume, published in 1889, dealt, under the above periods, with examples of Scottish domestic architecture in the first, second, and third periods; the first of the two final volumes now issued continues the review of buildings of the fourth period.

In the concluding volume the review of Scottish street architecture is continued. The quiet, old-fashioned towns that border the Firth of

Forth and line the east coast of Fife have yielded many picturesque examples ; and we have a particularly curious chapter dealing with twenty-two of the Tolbooths and Townhalls of old Scottish burghs. Next follows a supplement of several chapters on various subjects, as some sixty castles and mansions of which information had been quite recently received, one upon Scottish sun-dials, and finally a chapter upon " Early Scottish Masters of Works, Master Masons, and Architects."

The range and comprehensiveness of the work will be apparent even from this slight summary of its contents. Between eight and nine hundred buildings are described, and the five volumes contain not far short of four thousand illustrations, including numerous and helpful ground-plans.

The work is one of national importance and will long remain the standard book of reference on the subject with which it deals.—
J. M. GRAY, in *The Academy*, November 12, 1892.



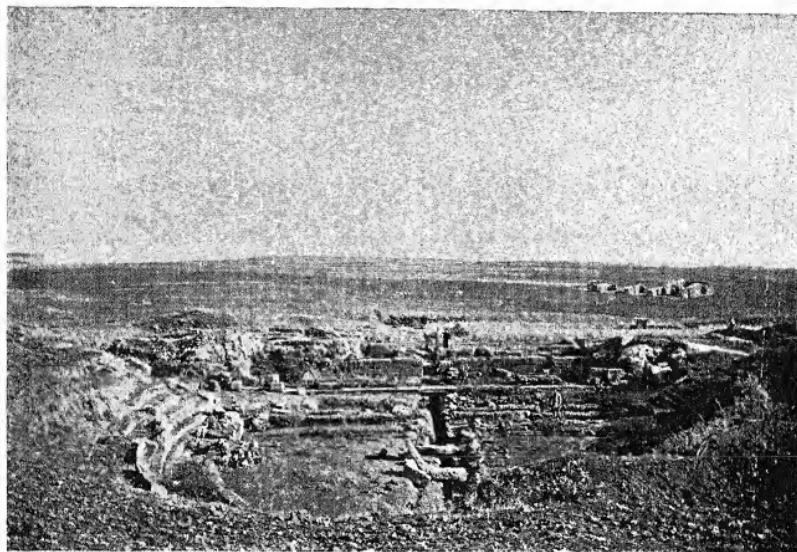


FIG. 1. THEATRE AT SICYON SHOWING THE HYPONOMOS.

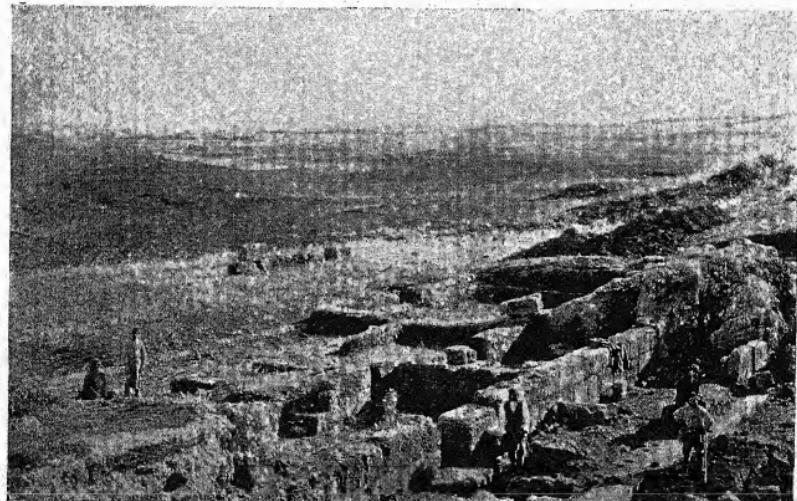
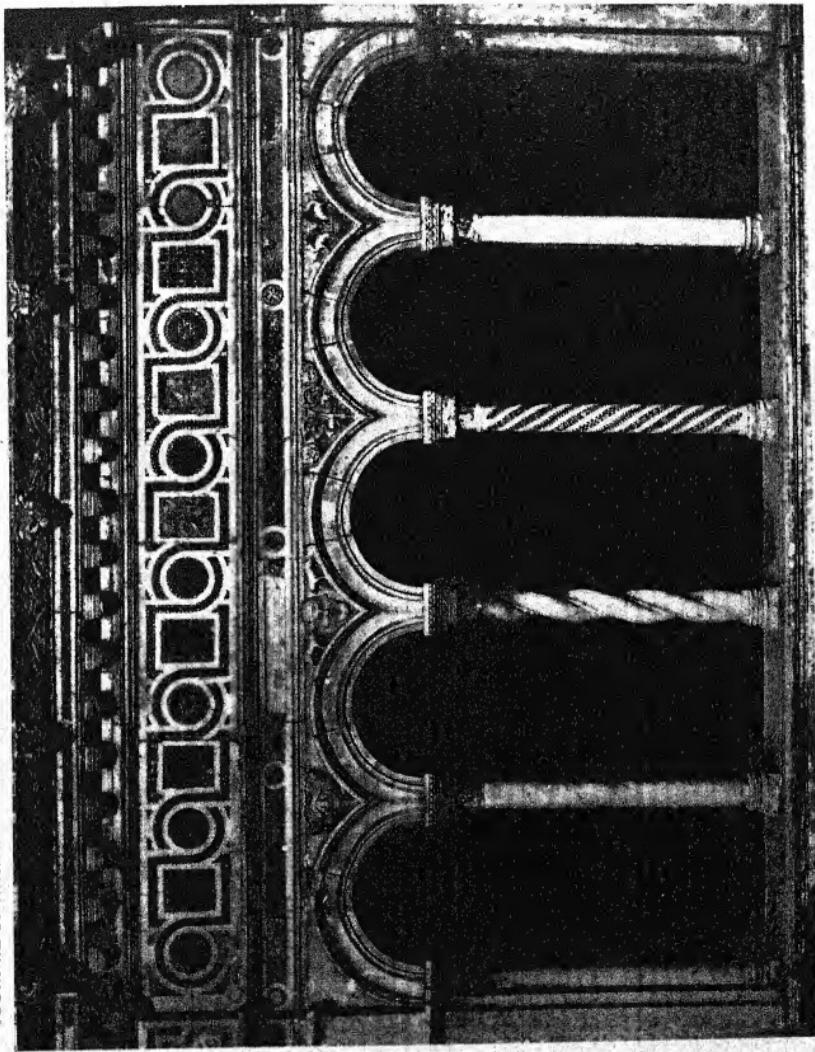


FIG. 2. STAGE OF THE THEATRE AT SICYON.



S. JOHN LATERAN, ROME.

BAY OF CLOISTER.



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No. 4

A HISTORY OF THE AKROPOLIS OF ATHENS.

[PLATES XV—XVIII.]

The basis of this "History of the Akropolis of Athens" was a paper read before the Royal Archaeological Seminary of the University of Leipzig, in March, 1891. The kind words of the Director, Professor Overbeck, encouraged me to have it published. At the end of a year, during which it has lain untouched, I have taken it up again, worked the old material over and added some that is new.

I have dwelt at proportionally greater length upon the condition and development of the Akropolis before the Persian invasion and its history after the Peloponnesian War than upon the Akropolis in the times of Perikles. The earlier period seemed to me more important, because the facts concerning it are new; the later claimed more attention, because the facts are unfamiliar to the general reader. But regarding the age of Perikles, the appearance presented by the Akropolis in his day is, as Dorpfeld has said,¹ so fully and definitely known from the buildings preserved and from extant literature, that differences of opinion concerning it are impossible except on minor points. New discoveries and more exact investigations of existing monuments can

¹ *Mittheilungen Athen*, xii, p. 162.

make no essential changes in the picture familiar to every one that turns these pages.

But acquaintance with the condition of the Akropolis as it was before its desolation at the hands of the Persians and its renovation by Perikles is by no means so definite or so universal. It is true, we had known from literature that the Akropolis was adorned with temples, altars, votive gifts, etc., before the Persians came, but we have not been in a position to form any adequate conception of that earlier glory before the days of Kimon and Perikles. And even the little that we once thought to be incontrovertible fact—for example, that there once stood upon the site of the present Parthenon an older Parthenon built by Peisistratos—even that has proved to be an error. Accordingly I have gone back to those older times and endeavored to present in full outlines the picture upon which so much new light has been thrown by the recent excavations.

Throughout the essay it has been my main object to follow historically the architectural development of the Akropolis. And in dealing with the Akropolis I have confined myself as nearly as possible to the upper Akropolis; and the buildings that lie upon its slopes have been drawn into the narrative only when they stood in some immediate relation to the enclosure of the Akropolis proper, and even then they have received only a passing mention. The Dionysiac Theatre, the Odeion of Regilla, the Choragic Monument of Thrasylos, the Odeion of Perikles, the real Theseion, the Eleusinion—all these are locally connected with the Akropolis, but are nevertheless foreign to my subject, which deals only with what is enclosed by the walls about the citadel (1).

(1) I wish, above all things, to express my indebtedness to Dr. Dörpfeld, Director of the German Archaeological Institute in Athens, for his kindness in permitting me to use both his private letters to me and his published articles in the *Mittheilungen des Instituts*. Next to Dr. Dörpfeld I have received most help from Michaelis' exhaustive work on the Parthenon, and from Wachsmuth's *Die Stadt Athen im Alterthum*. Two books, Harrison and Verrall, *Mythology and Monuments of Ancient Athens*, and Hertzberg, *Athen*, I wish to say in advance, were unknown to me, except by name, until after my essay was entirely completed. If, therefore, similarities should be found between parts of my narrative and theirs, it will be due, except where they are expressly quoted, to our having drawn from common sources, in the former instance, Dr. Dörpfeld; in the latter, Michaelis and Wachsmuth.

I.—THE FORM OF THE AKROPOLIS.

In the southern part of the precincts of ancient Athens there once rose up from the plain a rugged, chasm-torn rock—the last spur but one of the chain of hills that runs from Pentelikon to the southern coast of Attika. Its highest point was but 156.2 metres above the level of the sea, and less than 100 metres higher than the plain on which it stood. On the west side only did it offer a comparatively easy ascent. Everywhere else it fell precipitously to the plain with declivities more or less inaccessible. Of all the many hills that lay in and around Athens this was the only one with much of a surface on its summit, presenting as it did an area of 270 by 135 metres. Thus in its entire formation this rock seemed by nature designed for a fastness, and this destiny it fulfilled in becoming the most glorious fortress the world has ever seen—the Akropolis of Athens.

But the top of this hill was not always the smooth plateau that we now find it, but, as the excavations lately completed prove, everywhere a jagged, uneven, rocky surface, rough and rent with many fissures.

II.—THE FIRST SETTLEMENT.

Partly by hewing away the jags of rock and partly by filling up the chasms with stones and earth, the earliest inhabitants of Attika created on this uneven hilltop a number of smaller plateaus for their dwellings and sanctuaries. In a condition of society where universal warfare continually prevails, as we find it, according to Thukydides (I, 2) at the dawn of Greek history, the first settlements are necessarily made with a view to every possible advantage afforded by natural protection. They sought, not the highest hill, but the one that offered the broadest surface on its summit and had the steepest sides. Accordingly we should look to the Akropolis for the earliest inhabitants of the land. And here, in truth, they were; and the first settlement on the sacred rock of Athens dates back, as relics of the Stone Age found upon the Akropolis unquestionably prove, to an inconceivably remote period.² We

² ULRICH KÖHLER, in *Hermes*, vi, p. 105.

learn further from Thukydides³ and the common use of the word *πόλις* (city) elsewhere⁴—especially in Attic inscriptions⁵ that the citadel originally was “the city,” since by this word in its limited sense the Akropolis itself is officially designated. And before there was a “lower city,” there was no occasion for the word ‘Ακρόπολις to distinguish an “upper” from a “lower town.”

III.—Πυκνὸς δόμος Ἐρεχθίου. THE GOODLY HOUSE OF ERECHTHEUS.

But we need not confine ourselves to the evidence furnished by literature, for the spade has not long since settled the question beyond a peradventure. On the north side of the Akropolis about the Erechtheion (see plan of the Akropolis, PLATE xv) are now plainly to be seen the heavy foundation walls of a great royal palace. A number of apartments stretching one after the other from east to west may be distinguished, but just how far toward the south and west this palace extended cannot be determined, as the foundation walls in those directions were even in antiquity too far demolished. But as far as the outlines can be made out, the building that stood here corresponded exactly in material, in construction and in general arrangement with the similar royal residences in Tiryns, Mykenai and Ilion; and by analogy with these we may very justly infer that in Athens also a large part of the citadel was taken up by the palace of the ruling Prince.

Behind the palace, that is at its northeast corner, (AB, on Pl. xv) a narrow stairway leads from the royal house down through a cleft in the rock artificially widened to receive it, under the present wall of the Akropolis and almost straight toward the quarter

³ II, 15, 8-6: τὸ δὲ πρὸ τούτου (i. e. the time of Theseus) ἡ Ἀκρόπολις ἡ νῦν οὖσα πόλις ήν . . . τεκμήριον δὲ · τὰ γάρ ιερὰ ἐν αὐτῇ τῇ Ἀκροπόλει καὶ ἄλλων θεῶν ἔστι [καὶ τὰ τῆς Ἀθηνᾶς] . . . καλέσται δὲ διὰ τὴν παλαιὰν ταύτην κατοκησιν καὶ ἡ Ἀκρόπολις μέχρι τούτης ἔτι ὑπὸ τῶν Ἀθηναίων πόλις. “But before the time of Theseus, what is now called the Akropolis was the city: and a proof of it is that we find on the Akropolis itself the sanctuaries not only of Athena, but of other gods as well . . . And unto this day on account of its being anciently inhabited the Athenians still call the Akropolis ‘Polis’ (“the City.”)

⁴ Cf. PAUS. I, 26, 6: ἐν τῇ νῦν Ἀκροπόλει, τότε δὲ δρυμαζομένη πόλει.

⁵ E. g. CIA. I 32 B, 4 and 10. 58, 11; II 11, 26; 20, 2; 42, 7; 45, 5; 85, 18; etc. After the middle of the first century B. C. this use of *πόλις* in inscriptions ceases.

called *κήποι*—“the gardens;”—this little rear gateway may also, like the similar ones in Mykenai and Tiryns, have served for fetching water in time of need. It was, of course, entirely covered up in the fifth century by the building of the north wall of the Akropolis—the so-called wall of Themistokles. This little stairway, hewn in part out of the live rock, is scarcely at all different in its general plan and style of construction from that in Tiryns. The ancient palace on the Athenian Akropolis had, like the royal palaces at Tiryns and Mykenai, besides the main entrance in the west, a second approach from the side directly opposite. This second approach was, in each and every case, a narrow flight of steps, built in a half-hidden, secluded corner and in a steep place, accessible to foot-passengers only.

Furthermore, in the great court, which we find west of the Erechtheion (the place marked Pandroseion, on PL. xv), near the spot where that primeval, crooked, gnarly, old olive tree of Athena stood, was the altar of Zeus Herkeios⁶—the hearth and center of the state—at which the king, as the head of his tribe and father of the whole people, was wont to sacrifice. In the houses, the foundations of which we observe west of the Erechtheion (the walls colored green in our plan), we may perhaps recognize the habitations of the king's retainers, who must have dwelt in the closest proximity to their prince's palace. The altar of Zeus Polieus, too, erected by the first king, Kekrops, must have stood close by. Athena also had a sanctuary within the palace; and the theory has more than once been urged that it was the “old temple of Athena,” discovered by Dörpfeld in 1885 (see PL. xv), with which we shall have to deal later on, that stood within the gates of this ancient palace.⁷ This hypothesis is based on two passages from Homer: the one where Athena, after accompanying Odysseus to the house of Alkinoös, left him at the doors and “came to Marathon and to wide-wayed Athens and entered the goodly house of Erechtheus.”⁸ The πυκινὸς δόμος (“goodly house”) is, as the words signify, not the Hekatompedon (the old temple between

⁶ PHILOCH., *ap. DION. HAL.*, § 18 (frag. 146).

⁷ LOLLING, Τὸ Ἐκατόπεδον (*Ἀθηνᾶ*, 1890, reprint p. 17, note 1); DÖRPFELD, *Mitth. Athen.* XII. p. 26.

⁸ Od. VII, 80-81: ἵκετο δ' ἐς Μαραθῶνα καὶ εἰρνάγμαν τὸ Αθηνην, δῦνε δ' Ἐρεχθῖος πυκινὸν δόμον κ. τ. λ.

the Erechtheion and the Parthenon), nor yet necessarily the common temple of Athena and Erechtheus, but the Erechtheid palace, and by implication that part of the Erechtheid palace occupied by the shrine of Athena. For, in the first place, *δόμος* in Homer never means "temple" unless accompanied by the adjective *ἱερός* (sacred); and in the second place, *πυκινὸς δόμος* (goodly house) is Homer's standing epithet for royal palaces.⁹ But it is obvious that Athena came to Athens and entered the "goodly house of Erechtheus" for no other reason than that she had a sanctuary located within its gates and forming a part of it. But it is going too far to conclude from the passage quoted that her sanctuary occupied the same spot as either the Hekatomedon or the shrine of Athena in the Erechtheion. From this passage of the Odyssey, then, we learn only that Athena had a sanctuary within the royal palace on the Akropolis. The other passage from Homer, however, gives us more definite knowledge: "And they dwelt at Athens, a well-built town, the realm of the noble Erechtheus, whom once Athena, daughter of Zeus, reared up . . . and gave a place in her own rich temple at Athens."¹⁰ Now, although the poet in the first-quoted passage is evidently acquainted with the royal palace of the Erechtheids on the Akropolis, as even Aischylos¹¹ also is, in this second passage no "temple" can possibly be meant other than the complex sanctuary of Poseidon, Athena, and her foster son, Erechtheus, which was later called the Erechtheion, by way of distinguishing it from the other temple or temples of Athena Polias. She gives him a place in *her own* rich temple, that is, both are worshipped under one common roof; the conclusion is inevitable.

Near this most ancient sanctuary of Athena, the protecting goddess of the city, was the grave and heroön of Kekrops, the earth-born father of the Athenian people, and, in the popular tradition,

⁹ Cf. also *Od.* vi, 184; *Il.* x, 267; xix, 835; etc.

¹⁰ HM., *Il.* ii, 548–549: οἱ δὲ Ἀθῆνας εἶχον, ἐντίμενον πτολεθρον,
δῆμον Ἐρεχθίου μεγαλήτορος, δν ποτὲ Ἀθήνη
θρέψε, Διὸς θυγάτηρ
καὶ δὲ ἐν Ἀθήνῃσι εἰσεν ἐφ ἐν πλοι τηῷ.

¹¹ AISCH., *Eum.* 855: καὶ σὺ (the Eumenides) τιμαῖ
ἔδραν ἔχοντα πρὸς δόμοις Ἐρεχθίων.

their first king, after whom the city—that is, the Akropolis—was called “Kekropia.”¹² As in the case of all cultus heroes, the worship of Kekrops centered at his tomb; his worship, furthermore, was intimately connected with that of Zeus Herkeios and that of Athena Polias.¹³ As father of the race of the Kekropidai and king of Kekropia, he represents a definite epoch in Athenian story, an epoch older than that of the “Ionic” Erechtheus, with whose rise, furthered as it was by the Ionic epos, his former importance is lost. Erechtheus dwells as *μέντης* (indweller) or as *ὄφις οἰκουρός* (the serpent keeping watch over her house) in the holy of holies of Athena’s temple.¹⁴ But Kekrops, who had been to Attika all that Erechtheus was and more, is set aside with a little space at the corner of that same temple and outside of it. Some interpreters, grossly perverting the words of Clemens Alexandrinus,¹⁵ have forced Kekrops also *into* her temple. Clemens does say indeed that in the temple of Athena at Larisa there was the tomb of Akrisios, but of Kekrops he asserts no more than that Antiochos says that “upon the Akropolis of Athens is the tomb of Kekrops,” while he does emphatically affirm of Erichthonios that he was buried in the temple of the Polias.¹⁶ Theodoretos,¹⁷ borrowing from the same source, adds that the tomb is *παρὰ τὴν πολιούχον αἰτήν* [beside (the temple of) the Polias herself]; while Arnobius,¹⁸ copying from Clemens and carelessly confusing the two statements of the latter, makes him say that *Athenis in Minervio Cecropem esse mandatum terre* (that Kekrops was buried in the temple of Athena at Athens). The blunder is

¹² PLIN., *N. H.* VII, 56, 194: *oppidum Cecrops a se appellavit Cecropiam, quae nunc est ex Athens*; and *Etym. Magn.*, p. 832, 54, s. v. *ἐπακρία χώρα*. Moreover the name Kekropia is occasionally applied to the whole Attic land as well, which before had been called Akte; cf. APOLLOD. III, 14, 1; MAR. PAR. 1, 3.

¹³ PAUS. VIII, 2, 8; EUSEB., *Praep. ev.* X, 9, 22; id., *Chron.* II, 24. 27.

¹⁴ Cf. IMMISCH, in ROSCHER’S *Mythol. Lex.* II, p. 1023.

¹⁵ Protrept. III, 45: *ἐν τῷ νεῷ τῆς Ἀθηνᾶς ἐν Λαρύσῃ ἐν τῷ ἀκροπόλει τάφος ἔστιν Ἀκριοὺς, Ἀθήνησοι δὲ ἐν τῷ ἀκροπόλει Κέκροπος, ὡς φησιν Ἀγτίοχος κ. τ. λ.*

¹⁶ I. c.: *τι δὲ Ἐριχθίων; οὐδέποτε τέκνον Πολιάδος κυκλοῦσατ;* Cf. APOLLOD. III, 14, 7, 1: *Ἐριχθίωνοι . . . ταφέντος ἐν τῷ τεμένει τῇ θεράᾳ.*

¹⁷ Graec. affect. cur. VIII, 30, p. 115: *Καὶ γέρας Ἀθηνῆσοι ὡς Ἀγτίοχος . . . δῶν γε ἐν τῷ ἀκροπόλει Κέκροπος ἔστι τάφος παρὰ τὴν πολιούχον αὐτῆς.*

¹⁸ Adv. nat. VI, 6.

obvious. Besides, we have the best of testimony elsewhere to support the uncorrupted statement of Clemens: the inventories of the commission appointed to look into and report upon the condition of the new Erechtheion speak repeatedly of the "porch of the Korai" as being "next to the Kekropion."¹⁹ And there, at the southwest corner of the temple, in the remains of walls adjoining the hall of the Korai, the Kekropion is since the excavations clearly to be recognized.

With that same sanctuary of Athena Polias were closely connected the altar of Poseidon and those wonderful "signs" (*μαρτύρια*)—the salt spring and the sacred olive tree—witnesses of his strife with the goddess for the possession of the land. Here also Hephaistos was worshiped and here honors were paid to the serpent Erichthonios and to Pandrosos, his faithful nurse.

We must notice, however, that when we go back to Theseus and his father, Aigeus, tradition forbids us to think of them as occupying the royal residence that we have seen upon the Akropolis. One story, told by Kleidemos, makes Theseus dwell on the upper Ilissos; according to another, Aigeus has his abode not far from the Delphinion, and even in Plutarch's time the home of Aigeus was pointed out in that quarter.²⁰ There seems, then, to be no doubt that the residence of Aigeus and his son, who are foreign immigrants, and have, as Plutarch distinctly states,²¹ no connection whatever with the Erechtheids, was outside the city and that until after the "synoikismos" of Theseus they remained in some way entirely apart from the community that occupied the citadel. But from this time on we again find the Akropolis the sole seat of royalty. Here dwelt the ruler of the land surrounded by his retainers, his assistants in the government and the priesthood; here the chiefs of the people met at court, like the Trojans at the gate of Priam, to take counsel with the king; and here we find the germs of the race that prided itself on being descended from mother earth herself.²²

¹⁹ CIA. I, 322, col. I, 9. 56. 62. 83.

²⁰ PLUT., *Thes.* 12.

²¹ *Ibid.* 13.

²² THUK. I, 2; SOPH., *Aj.* 102.

It was by no mere chance, as we have already seen, that this hill was chosen as the original site for this favorite city of the ancient world. Not only as a fortress but as a dwelling place as well it was abundantly blessed by nature: in the hottest summer days it is fanned by a cool breeze from the sea, while the city and fields below are parched with heat and choked with clouds of dust. The seat of government, however, and the residence of the community were afterward removed from the Akropolis to other quarters, and the gods remained henceforth in sole possession of the "sacred rock."

IV.—THE FIRST FORTIFICATIONS.

Thus, in early times the Akropolis was not only the site of the oldest national sanctuaries but also the scene of public life and the seat and centre of the governing power. It was the "mighty tower" of Athens, but to have been such, it must have been defensible; and so it was. Indeed, it can no longer be seriously questioned that down to the time of Themistokles the city possessed no other fortifications whatever besides those about the Akropolis. When these fortifications were built we cannot tell, but they date far back into prehistoric times. Their construction, as well as that partial leveling of the surface of the Akropolis already mentioned, has been ascribed to the Pelasgians²³—a people shrouded in mystery—who, as foreign wage-workers, are said to have built the fortifications for the natives of the land. It is often said that a Pelasgian colony settled upon the Akropolis, but this is a confusion of story; for, according to every tradition, the Pelasgians are foreigners who have their home for the time on Mount Hymettos (or at the foot of the Akropolis) and are always quarreling with the inhabitants of the sacred hill. Still there is coupled with the name Pelasgians no definite notion of any particular tribe; they are, as Wilamowitz-Möllendorf²⁴ pertinently remarks, imported only to be expelled by the Ionians.

²³ HDT. VI, 187; MYRSILOS, ap. DION. HAL. *Antiq.* I, 28; PHOT., s. v. Πελαργύκος; KLEIDEMOS, *frag.* 22 (BÉKKER, *Anecdota*, p. 419, 27); SUID. s. v. διεδά and ἡπέδιον.

²⁴ *Aus Kydathen*, p. 144.

The name of this ancient stronghold is written in the one official inscription²⁵ that we possess Πελαργικόν—and it is there three times repeated with that spelling. Thukydides (II, 17) uses the word twice and the best manuscript (Laur. C) has Πελαργικόν both times; the same form is found also in Aristophanes,²⁶ Kleidemos,²⁷ Dionysios of Halikarnassos,²⁸ Photios,²⁹ and elsewhere.³⁰ Correctly speaking, therefore, Pelargikon and not Pelasgikon is the name that was given to that earliest settlement; but why it was called Πελαργικόν (Stork-nest (?) or Stork-town (?)) is a matter for speculation. At all events, the word Πελαργικόν has no connection whatever with Πελασγοί but, as there always were Pelasgi in Attika,³¹ the similarity between the words led easily to their confusion and to the slight change of name that resulted; and then, with stories³² invented to fit the case, people began to trace the work of fortification back to the Pelasgians, while the walls were styled "Pelasgic." Pausanias (I, 28, 3.) and Pliny (VII, 194.) even go so far as to name the architects—Agrolas (the rough stone) and Hyperbios (the man of giant strength.) They were said to have come from Sicily, the land of the Homeric Kyklopes whom Euripides (*Kyll.* 239) calls the "movers of rocks" and "builders of gates."

Upon hardly any other subject in the whole range of Athenian topography has so much been written, or so little that will stand the test of even the most superficial criticism, as upon the Pelargikon. It is not my purpose here to confute any or all the old views in regard to the Pelargikon or to propose any new mere theory of my own, but from the actual remains, with the help of our ancient authors, to reconstruct as far as possible the original fortifications of the Akropolis. Accordingly, we will begin not with a theory, as others have done, but with the remains that are still preserved; and here we may distinguish two parts of the Pelargikon, an upper and a lower.

²⁵ *CIA.* IV, 2, 27b.

²⁶ *Lys.* 1158, and *Schol.* R., I. c.; *Av.* 832 and *Schol.* RV 832 and 836.

²⁷ *Frag.* 22 (BEKKER, *Anecdota*, p. 419, 27.)

²⁸ *Antiq.* I, 28.

²⁹ s. v.

³⁰ Cf. JAHN-MICHAELIS, *Paus. Descr. Arcis Athenar.* I, 28, 3.

³¹ WACHSMUTH, University lectures, 1890.

³² Cf., e. g., HDT., *MYRSILOS*, PHOT., I. c.

(1) *The upper part.*—In the recent excavations traces, at least, of a wall surrounding the Akropolis were found on the east end and along almost the whole length of the south side (see PL. xv.) On the north side, however, but few remains of the "Cyclopean" wall are found. Nevertheless it need not in the least be supposed that the Akropolis was walled up only in places, for the remains of walls are found in the most inaccessible parts of the south and east sides, as well as in the parts by nature left the most defenseless. We must rather conclude that in its whole periphery the Akropolis was surrounded with a wall.³³ Remains of this old wall have been preserved there only where the new wall lies outside of the old. On the north the new wall follows exactly the line of the old one, and in every quarter wherever the line of Kimon's wall coincides with that of the old wall or lies within it, the old one had to give way and was entirely obliterated. The fragments of the wall that yet remain follow closely the natural lines of the formation of the rock and are everywhere built at the outermost edge of its upper surface.

Now, in order to obtain the complete picture suggested by the scanty remains along the north side, let us summon to our aid the Greek authors. Ηεκαταῖος³⁴ says: τὸ τεῖχος τὸ περὶ τὴν Ἀκρόπολιν ἐληλαμένον (the wall, built *around* the Akropolis). Myrsilos³⁵ remarks: καὶ (οἱ Πελασγοί) τὸ τεῖχος τὸ περὶ τὴν Ἀκρόπολιν τὸ Πελαργικὸν περιβάλλον (and they, *i. e.*, the Pelasgians) constructed the Pelargikon *round about* the Akropolis; and Kleidemos³⁶ also uses the word περιβάλλειν (to surround) and περίβολος (circumference) in speaking of the building of the wall around the Akropolis. Such expressions as these can be applied only to something encircling the entire citadel, as even Wachsmuth,³⁷ since the excavations, is willing to grant. Furthermore, the fact that the Persians clambered up on the north side and got

³³ After the above was written it was very gratifying to have Dr. Dörpfeld write that he fully agreed with me in this conclusion.

³⁴ *Ap.* HDT. VI, 187.

³⁵ *Ap.* DION. HAL. *Antiq.* I, 28.

³⁶ *Frag.* 22 (BEKKER, *Anecd.* p. 419, 27.)

³⁷ University lectures, Leipzig, 1890. For his earnest defense of the other view see his *Stadt Athen*, I, p. 292.

possession of the fortress proves nothing, for as Herodotos (viii, 53) tells the story they climbed up *κατὰ τὸ ἵδν τῆς Κέκροπος θυγατρὸς Ἀγλαύρου* (by the sanctuary of Aglauros, the daughter of Kekrops) which was *διπισθεν τῶν πυλέων* behind, that is, (beyond, outside the gates, for Herodotus is speaking from the point of view of the Persians), and of course the Athenians always had free communication between the Akropolis and the Aglaureion through this same cleft in the rock. But certainly this passage way was not open to the general public—hence the surprise of the Athenians that the Persians should come up that way—and it should be remembered in passing that the stone staircase in this cleft as at present existing (Pl. xv, CD) was not built until after the Persian wars. Again, from the words of Pausanias, (i, 22, 4) when he says *ἐς δὲ τὴν Ἀκρόπολιν ἔστιν εἰσόδος μία, ἐπέραν δὲ οὐκ ἔχεται, πᾶσα ἀπότομος οὐσα* (there is one entrance to the Akropolis and it has no other, for it is precipitous on every side), it cannot by any means be inferred that no wall was needed in prehistoric times and that therefore none existed; for in his day there certainly was one, and the *ἀπότομος* (precipitous) has reference of course to the condition of the Akropolis as he saw it, with Kimon's wall encircling it entirely round about.

Still, this great Pelasgic wall was not the only means of strengthening the citadel of Athens. The same art that availed to cut down in such a manner the rock of the Pnyx, on either side of the so-called Bema, was doubtless brought into requisition here to make the naturally precipitous rock of the hill even steeper.³⁸ This is, for example, obviously the case on the south side above the Asklepieion.

2) *The lower part.*—Besides the wall encircling the Akropolis above, there was also the lower or main part of the “Pelasgic” fortifications—the tremendous outworks at the west end, which are usually called the Pelargikon *par excellence*. Just what appearance these outworks presented we can never know; but so much is certain: they were a gigantic system of fortifications, with nine gates,³⁹ which led by several⁴⁰ terraces supported by

³⁸ Cf. WELCKER, *Felsaltar des höchsten Zeus*, p. 313.

³⁹ KLEIDEMOS: *περιέβαλλον ἐννεάπυλον Πελαργικόν* (frag. 22). POLEMON, *Frag.*

⁴⁰ *ἔκτος τῶν ἐννέα πυλῶν.*

⁴⁰ Just how many we cannot say.

the mighty walls, one above the other, gradually up to the citadel.

How much of this, now, is still preserved? The lowest wall of the Pelargikon was that whose position was afterwards occupied by the southernmost wall of the Asklepicion (see fig. 1, p. 489) and by this means in part preserved. This wall, along with the prehistoric road that lies immediately below it and conducts through the theatre of Dionysos and then leads, outside the wall as a matter of course, up to the citadel—this wall, with the road, is continued along from the Asklepieion at the same elevation until interrupted by the Odeion of Herodes Attikos. After the latter was built, the road was altered so as to run not only up behind it but down the slope again on the opposite—that is, on the west side of the cavea. This can still be traced. Before the erection of the Odeion then, we may conclude, both wall and road passed directly through the site now occupied by Herodes' theatre, and continued together (fig. 1) up to the Areiopagos; while the wall itself, without the road, extended on a little beyond Pan's Grotto and there rejoins the natural rock of the Akropolis, just as at the other end. The gate of this wall must have been situated directly opposite the Areiopagos (fig. 1), for first the Amazons, as the story goes, and then the Persians made this hill the base of their operations against the Akropolis.⁴¹ And in addition to the inference that is so easily drawn from the operations of the Amazons and Persians, Polemon⁴² seems to state distinctly that such was the case, when he says that “the heroön of Hesychos is situated close to the Kyloneion (that is, by the grotto of the Eumenides on the northeast corner of the Areiopagos, facing the Akropolis) just outside the nine gates.” The first or outermost gate, therefore, *must* have been directly opposite the Areiopagos (fig. 1).

Now let us return again to the south side. Between the Odeion and the Asklepieion we find preserved (fig. 1) a small part of the second terrace wall, which first projects at almost a right angle from the rock of the Akropolis, then bends around, and extends on, nearly parallel to the first wall. This is the second circuit wall

⁴¹ HDT. VIII, 52; PAUS. I, 18, 2.

⁴² Freg. 49 (*Schol. to SOPH. Oid. Kol.* 489).

of the Pelargikon. But, be it noted, while the first was "Cyclopean," this, like the next to be mentioned, is "polygonal," and, therefore, either repaired later or altogether of later construction.

Somewhat higher, but still outside Beulé's gate, there were certainly other such terraces, as every one that has ever climbed the hill, or even studied von der Launitz's model of the Akropolis, will not have failed to observe. Excavations will soon decide whether or not the remains of Pelasgic walls are hidden there.

The other polygonal wall, above referred to, the one lying in the axis of the Propylaia (fig. 1, fourth terrace, see PLATE XV, between Beulé's gate and the Propylaia), although it has often been called "Pelasgic," is not so old, but probably belongs to the VI century B.C., and is perhaps a part of the new plan of fortification executed by Peisistratos, in order to make the old Pelasgic fortress quite impregnable. Whether it actually took the place of one of the old Pelasgic terrace-walls we can no longer say with positive certainty.

But now again we come to another portion of the genuine ἐννεάπυλον Πέλαργικόν (the nine-gated Pelargikon), the Pelasgic wall that is now for the most part hidden by the Nike bastion (Pl. xv and fig. 1). Here would come the last great struggle on the part of the defenders to protect their stronghold, and on the site of the Nike bastion we have still the remains of a mighty fort, an older "pyrgos," flanking for a considerable distance at close range the unprotected right side of the attacking foe. That taken, but one more wall was left to storm—the highest and last, and the best preserved portion of this great fortress. This was at once the boundary wall of the sanctuary of Artemis Brauronias and also a part of the surrounding wall of the upper citadel. It is an exceedingly massive wall, six metres thick, and as Akropolis wall it needed to be stronger at this point than elsewhere, for everywhere else on account of the steepness of the cliffs the wall was only with the greatest difficulty approachable by the enemy.

Thus we have found as lower Pelargikon a system of nine great redoubts rising one behind the other.

And now we are met by the further question: how far did the Pelargikon extend? That it was by no means small we know from the passage in Thukydides (ii, 17), in which is narrated how

upon the invasion of Attika the people, in their extremity, crowded into the city, and filling up every available spot took up their abode even in the Pelargikon, in spite of the fact that the place was laden with a curse.⁴³ The same incontrovertible evidence is afforded by the Eleusinian inscription already mentioned, for the decree therein preserved forbids the quarrying of stone within the Pelargikon and also the carting away of earth from the same.⁴⁴ But from three passages of Lucian we have more exact information: (1) *Pisc.* 42, where the philosophers throng up to the citadel. The description of the localities is exact and systematic; the wise men completely fill the *ἀνοδός* (that is, the western slopes of the Akropolis); and then this specification follows: in the middle, the Pelargikon; to the right of it, the Asklepieion, and to the left the Areiopagos; again, to the right of the Asklepieion the grave of Talos, and again to the left of the Areiopagos the Anakeion. Thus:

- 5) Anakeion
 3) Areiopagos
 1) Pelargikon Akropolis
 2) Asklepieion
 4) Grave of Talos

From this it is clear that the Pelargikon reached at least from the Asklepieion to the Areiopagos. In complete accordance with this conclusion might be adduced as still further evidence, if more were needed, the entire absence of all ancient buildings on the terrace between the Asklepieion and the Odeion of Herodes; for it was forbidden to build anywhere within the walls of the Pelargikon, the oracle declaring *τὸ Πελαργικὸν ἄργον ἀμενον* (that it was better, safer, that the Pelargikon should be bare).⁴⁵

But did it extend no further on the north beyond the Areiopagos? From the second passage in Lucian (*Pisc.* 47), where the philosopher-fisher seating himself ἐπὶ τῷ ἀκροντῷ τείχου (that is, "upon the corner of the wall," of the Akropolis of course, next to

⁴³ THUK., II, 17: *τὸ τε Πέλαργικὸν ὅ καὶ ἐπάρατον τε ἦν μὴ οἰκεῖν.*

⁴⁴ This prohibition is recorded by POLLUX (viii, 101) also, who adds that in case of violation the fine was three drachmae and "costs."

⁴⁵ Cf. THUK., II, 17.

the Pinakothike), and dropping down his hook, baited with figs and gold, is asked whether he is going to fish up stones out of the Pelargikon—from this passage we discover that the Pelargikon extended at least as far as the north side of the Pinakothike. Finally, according to the third passage (*Bis acc. 9*), Pan's dwelling-place is *μικρὸν ὑπὲρ τοῦ Πελασγικοῦ* (a little above the Pelargikon). And thus we have its extent pretty accurately defined—from the Asklepieion on the south to Pan's Grotto on the north; for the Aglaurion, according to Herodotus (viii, 52) was not included, but lay behind—that is, outside—the walls. These limits furthermore would be in complete accord with the defensive purpose of the walls; for in this way the two best springs of the neighborhood, the Klepsydra, accessible from the summit by its Cyclopean stair-way of fifty-two steps which is still preserved, and the spring at the Asklepieion (see fig. 1) lay within the fortifications—no small advantage in time of siege. The lower Pelargikon was, therefore, identical with that part of the pre-Thesean city which was *τὸ υπὸ τὴν Ἀκρόπολιν τὴν νῦν οὖσαν πρὸς νότον μάλιστα τετραμένον* (the part below what is now the Akropolis and facing the south).⁴⁶

In the time before the Persian wars, then, the Pelargikon consisted of two parts, and the name Pelargikon was applied to the whole Akropolis—that is, to the whole upper citadel *and* the fortifications on the west and south. This, moreover, follows conclusively from the statements of Herodotus,⁴⁷ Aristotle⁴⁸ and the Marmor Parium,⁴⁹ all three of which authorities testify that Kleomenes compelled the tyrants (meaning Hippias) to vacate *τὸ Πελασγὸν τεῖχος* (the Pelasgic wall) within which, that is, within the walls of the Akropolis, he had been besieging them. But from the v century on, after Kimon's wall had supplanted the corresponding part of the “Pelasgic” walls, only the lower portion in its mighty ruins was understood by the name Pelargikon. For then the Akropolis, still in all official documents called “the city” (*ἡ πόλις*), consisted of these two parts: 1) the upper Akropolis,

⁴⁶ THUK., II, 15.

⁴⁷ v, 64: Κλεομένης δὲ . . . ἐποιήρκε τοὺς τυράννους ἀπεργμένους ἐν τῷ Πελασγικῷ τείχει.

⁴⁸ Frag. 357 (Schol. R AR. Lys. 1153): Κλεομένης . . . τὸν Ἰππίλαν συνέκλεισεν εἰς τὸ Πελαργικὸν τείχος, ἥντος οἱ παῖδες τῶν τυράννων ἔξιντες ἐάλωσαν.

⁴⁹ CIG. 2874 (ep. 45): [αὐτὸν] Ἀθηναῖον [εἴσαντος] ήσαν τοὺς Πεισιστρατίδας ἐκ [τοῦ Πελασγικοῦ] οὗ τείχους.

the sacred enclosure (*ἱερὸν τέμενος*) of Athena Polias, and 2) the lower Pelargikon—also called Kranaa. Otherwise the following passages from Aristophanes, rendered so clear in the light of this explanation, must remain unintelligible: 1) *Lys.* 480: “Why have the women taken possession of the citadel and why of the Pelargikon?” And likewise 2) *Birds* 826 (832): “Who will be the πολιοῦχος”—that is, who will have possession of the Akropolis—“and who will hold the Pelargikon of the Akropolis?” And finally, Strabo (ix, p. 401), also quoting Ephoros, is familiar with this twofold division of the Akropolis: *τοὺς Πελασγούς, ἀφ' ὧν ἐκλήθη μέρος τη̄ς πόλεως [δηλ.'Ακροπόλεως]Πελασγικόν* (the Pelasgians, from whom a certain part of the city—that is, of the Akropolis—was called Pelargikon), and in harmony with this stands the passage in Thukydides (ii, 17): *τὸ Πελαργικὸν τὰ ὑπὸ τὴν Ἀκρόπολιν* (the Pelargikon, the part that lies below the Akropolis).

The nine-gated Pelargikon can be conceived of, in the most general outline only, something as in the accompanying diagram.

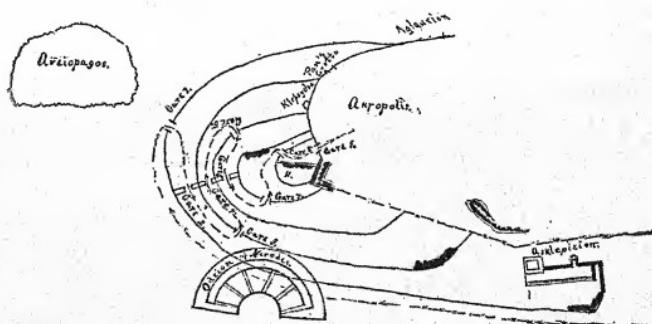


Fig. 1.—The Pelargikon Restored.

The road must have wound in some such way, from gate to gate; and not only were the attacking forces in constant danger from the defenders on each succeeding terrace above them, but their advance was nine times blocked by gates, in which feature indeed lay the main strength of the fortress, and each time a new redoubt must be stormed, in order to push on step by step to the summit.

Of the later history of these colossal fortifications so much can be said. They certainly did not fall with the overthrow of Hippias, as Wilamowitz-Möllendorf⁵⁰ supposes they did, for when three decades later the Mede invaded the land they still did remarkably good service. The few⁵¹ Athenians who lacked the courage to go with Themistokles to Salamis built a stockade⁵¹ in front of the outermost gate; for thus they thought to fulfill the conditions of the oracle which declared that their "wooden walls should be impregnable."⁵² The Persians at once set these wooden walls on fire, but for all that were still no nearer capturing the citadel than before, although they outnumbered the Athenians a thousand to one. These old "Pelasic" walls still defied them, and they were obliged to make their way to the citadel by climbing up a steep place behind these impregnable fortifications through the Aglauion, where no one had dreamed they would come.⁵³

The next information is given by the Eleusinian inscription (*CIA. IV, 2, 27b*), from which we gather that the Persians had partially demolished the walls and that in Perikles' time, to which the inscription belongs, builders had found in those overturned blocks of gigantic proportions an excellent stone-quarry, which they utilized until what was left was protected by the very statute that gives us this information.

Let those who are still inclined to follow Wilamowitz-Möllendorf and to believe with him that the Pelargikon was completely destroyed with the fall of the tyrants, or by the Persians, or by the transformations of the west end of the Akropolis incident to the building of the Propylaia of Mnesikles, consider this one fact: the upper wall of the Pelargikon was standing to a height of over thirty feet after the erection of the Mnesiklean Propylaia. So much is incontrovertibly certain; for we notice that the southeast corner-

⁵⁰ *Aus Kydathen*, p. 107. The only foundation for his supposition seems to be the subjective feeling that if he had been the "victorious demos" such would have been the fate of the tyrants' stronghold.

⁵¹ HDT. VIII, 51: *καὶ τινας δλήγους εὐρεσκούσι τῶν Ἀθηναίων, ἐν τῷ Ιράδ ἔσντας, ταμιας τοῦ Ιράδ καὶ πέντε ταῖς διθράπτοις, οἱ φραξέμενοι τὴν Ἀκρόπολιν θύρησι τε καὶ ξύλουσι ἡμένοντο τοὺς ἐπίσντας . . . δοκέοντες ἐξευρκέναι τὸ μαντήιον τὸ ἡ Πυθίη σφι ἔχρησε, τὸ ξύλινον τείχος ἀνάλωτον ἐσεσθαι αὐτὸ δὴ τοῦτο εἶπε τὸ κρησφύγετον κατὰ τὸ μαντήιον καὶ οὐ τὰς νεάς.*

⁵² HDT., VIII, 51-52.

of the southwest wing of the Propylaia is beveled vertically from base-stone to cornice so as to fit up squarely against this wall, and this fact proves beyond a peradventure that this upper wall of the Pelargikon was still standing when the Propylaia were built, and was still higher than the roof of the southwest hall (30 feet).⁵³ Otherwise such a bevel corner would have been worse than senseless. And it further proves that even Mnesikles and his associates still recognized the necessity of preserving the old fortifications for their original purpose; otherwise enough of that old wall would have been removed to make way for the new gateway, and the corner of the southwest wing would have been unmarred. And the condition of this upper wall at that time shows how well preserved the remains must have been, not only of the upper wall, but of the lower walls as well, for the upper wall, which in the last quarter of the fifth century they took so much pains to conserve, would have been practically useless without the lower walls; besides, as we shall presently see, these lower walls were seen by the traveler Polemon, two hundred years later. Moreover without the existence at the close of the fifth century b. c. of another such defensive wall below, and in it an actual fortress-gate, neither the situation suggested by Aristophanes in the Birds (826 (832)) and Lysistrata (480) nor the occupation of the Akropolis by the Spartan garrison in 403 b. c. can be understood. It would be a necessary assumption, even if we had no proofs.

Now comes, more than two centuries later, the Alexandrian periegete Polemon, who speaks⁵⁴ of the ἑννέα πύλαι (nine gates) in a description so vivid that there can be no question but that, in spite of all the changes in and about the Propylaia, he nevertheless saw the entire lower Pelargikon with all its nine gates in a state of tolerably good preservation. For by the nine gates (which certainly can be nothing else than the ἑννεάπυλον Πελαργικόν—nine-gated Pelargikon) and the Kyloneion together he locates the position of the tomb of the hero Hesychos. And one does not define the location of a sanctuary, or anything else, by means of something that has long since disappeared or become unrecogniz-

⁵³ Cf. DÜRPFFELD, *Mith. Athen*, X, p. 139-140.

⁵⁴ *Frag.* 49 (*Schol. Soph. Kol.* 489).

able. Accordingly, in the days of Polemon, also, the Pelargikon with its nine successive redoubts still stood.

Again, even in Sulla's time (86 b. c.) the fortifications of the Akropolis were still so strong that Sulla's lieutenant, Seribonius, thought it wiser not to attempt to storm the citadel, but by cutting off the Klepsydra to compel Aristion and his forces to capitulate for want of water.

The above-cited passages from Lucian and Pausanias' remark that "all the walls of the Akropolis in his day, except those built by Kimon, were erected by the Pelasgians," are very significant. What Pausanias in effect says is that the Akropolis walls consisted in his day of two parts: 1) the wall of Kimon, to whom he assigns with probable correctness the whole upper encircling wall of the Akropolis, including the so-called wall of Themistokles, who almost certainly had nothing whatever to do with it, and 2) the wall or walls built by the "Pelasgians"—that is, all the fortifications on the west; for he certainly saw the upper wall, which we still see to-day at the south-east corner of the Propylaia (see PL. xv) and, as it seems to me, others besides. Accordingly, both Lucian and his contemporary Pausanias, seem to testify that the Pelargikon continued in fairly good preservation even into the time of the Roman Empire. At length by the building of the Odeion of Regilla, the outer ring or rings of the fortifications were for the first time broken through and so weakened that they were once more converted into a stone-quarry, and in this way the old Pelargikon fell into absolute ruin and disappeared. I am convinced that down to the times of Herodes Attikos the outer circle of the Pelargikon still stood from Klepsydra to Asklepieion as a wall of defense, with a real, defensory gateway. Otherwise I fail to understand the above-quoted passages from Aristophanes, or the occupation of the Akropolis by the Spartans in 403 b. c., or the procedure of Scribonius in 86 b. c., or the building of additional strong towers in the first century A. D.

In immediate connection with the Pelargikon we ought to consider for a moment the history of the approach to the citadel. No other part of the Akropolis, as the centuries have rolled by, has suffered transformation so complete as has its main entrance. In the earliest times the first or outermost gate lay opposite the Areio-

pagos and the road wound from terrace to terrace and from gate to gate up to the citadel. Inside the Propylaia the general arrangement was always essentially the same: just inside the entrance to the Akropolis proper the road divided into two branches forming the two principal streets of the Akropolis. Both led ultimately to the central point of the sacred enclosure—the great altar of Athena Polias, still to be seen a little to the north-east of the Parthenon (PL. xv). The one to the right led between the old Athena temple and the Parthenon directly to this spot; the other, bending to the left, passed along the wall on the north side of the Erechtheion and so around to the altar.

There were several altars belonging to the Athena cultus upon the Akropolis of Athens, but one altar *κατ' ἔξοχήν*, and it was accordingly officially called simply *ὁ βωμός* (*the altar*), or *ὁ μέγας βωμός* (*the great altar*) without any further designation; and that is the altar of which I have been speaking, northeast of the Parthenon and southeast of the older temple and belonging to both. Like the great altar in Olympia, it also stands not squarely in front of the great temple but a little northeast of it, a huge, rectangular block of rock rising slightly above the level of the plateau on which it stands.⁵⁵

But it is outside the Propylaia and in the Propylaia itself that we are to look for the greatest changes. It is not a matter of mere alteration in the general plan of ascent, nor yet, as we shall see later, of building a new structure right on top of the old, but of eradicating the old entirely and laying the new road deeper. Near Beulé's gate the road in ancient times lay much deeper than that of the Roman period. For just inside this gate, north of the polygonal wall described above (PL. xv), and about two and a half metres below the level of the Roman staircase, the excavations have brought to light an altar *in situ*. This was one of those altars, probably all to chthonic divinities, which we know had of old been set up in the Pelargikon⁵⁶ and to the number of which it was in the time of Perikles forbidden to add.⁵⁶

The polygonal wall just mentioned fixes the position of the terrace next above the one on which this altar stands, and is

⁵⁵ Cf. DÖRPFELD, *Mittb. Athen*, XII, p. 51.

⁵⁶ CIA. IV, 2, 27b.

a further evidence that the road must have followed a winding course. And furthermore that this continued to be the manner of ascent to the citadel until Roman times is conclusively demonstrated by the fact that at the elevation of the Nike pyrgos and the Agrippa monument the older road was higher than the level of the stairway. For the lowest courses of stone both in the Nike pyrgos and in the pedestal of the Agrippa monument visible above the steps were left uncut—a sure evidence that at the time they were built so much of the foundations lay beneath the surface of the road and was not intended to be seen. Accordingly, even at the time when the Agrippa monument was erected (about 27 b. c. and certainly before the building of the stairs, for the monument in question faces not the stairs but the old road) the upper part of the road lay on a higher, and the lower part on a lower plane than does the corresponding part of the Roman stairway now existing; and the communication between these greatly differing levels must almost certainly have been effected by the winding terraces—or by a ladder.

We shall see later how, when the staircase was built, the very traces of the old approach almost wholly disappeared.

V.—THE AKROPOLIS UNDER PEISTRATOS AND THE PEISTRATIDAI.

Such, then, was the Akropolis, surrounded with its “Pelasic” fortifications, the huge bulwarks at the main entrance in front themselves overhung by the mighty bastion on whose summit from remotest antiquity had stood the sanctuary of Athena-Nike. The citadel continued till into the time of the Peistratidai to be the seat of sovereignty, for even after the assassination of Hipparchos, Hippias, in order to insure his supremacy, made it his stronghold. But from that time until the Middle Ages people dwelt in the lower city only. To Peistratos and his sons the city owed the wonderful progress it made in those times; and it was indebted to them personally for more than one costly structure.⁵⁷

⁵⁷ E. g., the famous Altar to the Twelve Gods and the Enneakrounos in the Agora, the Olympieion (begun but not completed), the Pythion, a sanctuary of Apollo, the addition to the Gymnasion in the Lykeion, with its decorations and equipment, also

Some of the buildings that must have existed at the time of Peisistratos have already been mentioned. Let us now try as far as possible to picture to ourselves the Akropolis as it then looked. First we have to imagine two^{ss} temples which must have been there long before the time of Peisistratos and were doubtless still there in his day, but whose exact location cannot now be determined. That they did exist is abundantly proved by the invaluable remains of these very temples—the pediment reliefs of poros stone. All four of them are more or less well preserved. The first, which has been known since 1882, represents Herakles in combat with the Lernæan Hydra. This monster enemy fills the whole right wing of the pediment; the left is occupied by Herakles, with breastplate, bow and quiver, and his friend Iolaos with the chariot drawn by two horses headed toward the corner. This was the conventional arrangement of the figures of this familiar group and the artist did not feel at liberty to break away from the traditional form, however great difficulty it occasioned him. His horses could not be driven with heads erect into that sharp angle. But for the lowered heads, made necessary by the shape of the gable, some motive must be found. And the motive our artist has furnished with the touch of a master's hand. In the extreme corner of his pediment he has introduced the giant crab that came to the assistance of the Hydra, and the horses, catching sight of the monster as it creeps toward them, bend down their heads to sniff at it, as if even to them it were an uncanny sight.^{ss}

the construction of water-works on a magnificent scale, and of beautiful, broad streets. We observe, therefore, that it was the city proper and the suburbs even more than the Akropolis that were the objects of their especial attention and care.

^{ss} A third—the temple of Aphrodite ἐφ' Ἰππολότη— is known to us only through the obscure reference of a scholium to EUR. *Hipp.* 30: *ἐν τῇ Ἀκροπόλει ιδρύσατο* (ἢ Φαιόβα) *'Αφροδίτης λέρνη ἐπὶ κακῷ Ἰππολότου.*

'Αφροδίτης ναὸν ιδρύσασθαι τῇ Φαῖδραν φασιν. Ἐκδιλεσσε δὲ 'Αφροδίτην ἐφ' Ἰππολότη,
ἥν καὶ Ἰππολύτην καλοῦσιν.

^{ss} A highly interesting feature of these four, the earliest of all the pediment-reliefs known to us, is the polychromy; but however inviting a digression upon this much vexed theme might be, it does not properly belong to a "History of the Akropolis." Still so much may with propriety be said, in order that the reliefs may be presented more vividly to the reader's mind: the background is not painted at all; the figures, however, raised in relief upon it, are colored in a manner true to nature. The naked

An excellent companion piece to this we find in a second pediment relief of the same size and workmanship, discovered like the other in the southeast corner of the Akropolis, and representing an adventure of Herakles that has at least an external resemblance to the former one. In this relief we see the hero struggling with the *άλιος γέρων*, Triton, the Old Man of the Sea. Herakles has thrown himself upon Triton with the whole weight of his powerful body and grasping his opponent about the neck with his left arm he draws on that with his right and threatens to crush his throat and chest as in a vise. Triton, finding himself in so dangerous a case, tries but feebly to defend himself with his left hand while he stretches out his right as if imploring aid from the person or persons on the left side of the gable. For in that quarter we must necessarily restore in our imagination a spectator or spectators of the contest, as in the third relief of our series.

How suitable a companion piece for the snaky coils of the Hydra are those of the fish-monster, Triton! and in view of all the remarkable coincidences of subject, place of discovery, workmanship, and dimensions, we are compelled to assume that both pediments belonged to one and the same amphiprostylos. And to whom then alone of the gods can this temple have been sacred? Only to Herakles. To be sure, neither history nor tradition tells us anything of a Herakleion upon the Akropolis; but what further proof of its existence do we need than these same two pediments, especially since we know that the Attic people anciently worshiped him as a god, and since both tradition and monuments of every sort reveal the intimate relation in which he stood to the guardian goddess of the city? But in regard to this little temple it is easy to understand why tradition should be silent; for the Persians doubtless destroyed it, and after the war the Athenians had something better to do than to rebuild the temple of a divinity that had now become specifically Dorian. So the very site of the Herakleion was obliterated and forgotten—perhaps even taken by some other building.

Thus we have made the acquaintance of a temple of whose ex-

parts of Herakles and Iolaos, for example, are flesh-colored, while eyes, hair and beard of Iolaos (Herakles' head is lost) are black. The Hydra's heads are a bright green, while its opened mouths are red. A peculiar feature in the Typhon pediment is the blue-bearded giant. Both the reliefs are produced in the colors of the original in the "*Denkmäler des Instituts*," I, 30.

istence on the Akropolis no more is known. But it is not the only one unknown to literature among the temples belonging to that period. For besides these poros pediment reliefs two others have been found. The first represents (Pl. xvii), like the relief above described, the struggle of Herakles with the Old Man of the Sea, but it is larger than the other, and the combatants in this, the larger relief, occupy the left wing of the pediment, while the corresponding figures of the smaller one are intended for the right. This time we find the spectator of the contest still preserved—a creature, man above and snake below, holding in his right hand an eagle, the symbol of royalty. This regal personage is in all probability Kekrops himself, who is here present as umpire,⁶⁰ just as we find him in the west pediment of the Parthenon.

And again the corresponding pediment is not wanting; it represents the battle of Zeus with the “*τρισώματος Τυφῶς*”⁶¹—the



Fig. 2.—The Serpent (Echidna) in the pediment.

triple-bodied Typhon. Typhon is represented as a monster with three human bodies furnished with three pairs of wings and terminating below the breast in three great snaky coils that ultimately unite inextricably in one; growing from its bodies smaller serpents writhe and hiss. Filling the other angle of the pediment is a giant serpent, in which, participating as it does in this mighty conflict, we are perhaps to recognize Echidna, Typhon's spouse (fig. 2). From the middle of the pediment we see Zeus and Herakles hastening from the heights of Olympos against their monstrous foes—the father of light and his son, in human form and in the service of mankind, rushing on to overthrow the unre-

⁶⁰ Cf. *Marm. Par.* 1; *APOLLOD.* III, 14, 1 sq.; *PAUS.* I, 2, 6; *HYGIN.*, *Fab.* 48; *EUSEB.*, *Chron.* 6, 22, etc.

⁶¹ *EUR.*, *H. F.* 1258.

strained Vulcanic forces that threatened to confound the order of the universe.

Here again are two pediment reliefs of the same material, of precisely the same dimensions, and of the same style; the representations also are not without connection. These two also unquestionably belonged to one and the same building. We can only guess that this building may have been a temple to Zeus, perhaps to Zeus Polieus, who, as we know, had a cult on the Akropolis, and whose altar and statuary—the primitive one and beside it the new statue by Leochares—were seen by Pausanias (I, 24, 4). At any rate, it seems certain that the worship of Zeus upon the Akropolis of Athens is as old as that of Athena herself. He is the greatest of the gods everywhere. To him Athena vows the sacrifice of a bull if she shall vanquish Poseidon in the contest, and to him she pays her vow. His importance may once have been greater than that of his daughter, but certain it is that at Athens, however great it once was, the worship of Zeus gradually paled into comparative insignificance before that of the vanquisher of the god of the sea.

In the first paragraph concerning these ancient reliefs, it was stated that they were at least older than Peisistratos. To give an exact date for their creation is, of course, impossible. The conception, especially of the Hydra relief, is worthy of a great master; for it is a matter of no small significance that every position, even down to the finest details, has an excellent motive. Still, we are fully justified by other considerations, such as that of execution, in assigning to these reliefs a somewhat earlier date than the first half of the sixth century.⁶² Earlier than that time, to be sure, even the temples of the gods were usually built of wood and other perishable material; but temples adorned by pediment reliefs of stone were never built of wood and sun-dried bricks but of stone. A temple of stone, however, earlier than the sixth century B. c., is not an altogether inconceivable thing. Furthermore, these reliefs have no figure directly under the angle in the middle of the pediment, as have the pediments of the temple of Aigina, of the treasure house of the Megarians at Olympia, and probably also of the old Polias temple on the Akropolis. The poros pediments, how-

⁶² This is the date assigned by MAYER, *Mittb. Athen*, X, 323.

ever, were wrought at an earlier time, before it had become the established rule to put into the middle of the pediment the principal figure of the group adorning it. This feature, together with the composition, the coloring and the style as compared with the pediment group made for the Polias temple under Peisistratos adequately warrant us in dating our reliefs far back into the seventh century before our era.

With regard to the third temple earlier than Peisistratos' day—the old temple of Athena—with regard to this we can reach results more definite and certain. The credit of having discovered the remains of this temple belongs to Wilhelm Dörpfeld. Only the foundations with a part of the stylobate are still preserved *in situ* between the Erechtheion and the Parthenon (see Pl. xv); but there are elsewhere scattered architectural pieces of the building in number sufficient to enable us, with Dörpfeld's help, to picture, at least with a certain degree of accuracy, how the temple must have looked.

In the north wall of the Akropolis, a little to the west of the Erechtheion, are to be seen quite a large number of architectural fragments of the temple; still others are found in the south wall, all of which have contributed not a little to its reconstruction. These fragments consist of drums and capitals of columns, architrave-blocks, triglyphs and cornices—all of poros stone—and metopes of marble. From the dimensions of these fragments and of the foundations Dörpfeld has proved not only that they belonged to one and the same building, but also that that building was a hexastyle peripteral, with six columns at each end and twelve on each side—the corner columns being, of course, counted twice. As the remaining pieces of stylobate show, the columns stood, like those of the Heraion at Olympia, upon a platform only one step high, instead of three, as the rule is. Such was its appearance in general.

The ground-plan (Pl. xv) reveals unmistakably 1) in the eastern end, besides the pronaos, a cella, which is divided by two rows of columns into three parts—nave and aisles, like a Christian church. In this respect this older temple is precisely like the later Parthenon. Completely separated by a solid wall from the eastern half is found 2) the opisthodomos, forming the western half of

the temple. In this respect again it is precisely like the Parthenon. In one point only does the inner arrangement of the older temple differ from that of the Parthenon: the latter has as opisthodomos a single large room preceded by a pronaos, while the western end of the former contains, besides the pronaos and cella proper, two smaller chambers⁶³ adjoining but not connected with the cella on the east. The eastern cella was, of course, the sacred shrine of the goddess; but what purpose did the back rooms serve? This question is answered fully and unequivocally by official documents, inscriptions of earlier as well as of later date than the Persian wars. The whole opisthodomos was the treasury of Athens. In the large room to the west (E) the state-funds were kept; this was certainly the case after the Persian wars and probably also from the very beginning. In the smaller chamber to the right, that is, the room on the south side (G), were preserved the moneys of Athena and in the left room (F) those of the other gods.⁶⁴

Furthermore, if we examine the foundation walls more closely, we are struck by another fact of peculiar interest, namely, that the temple originally possessed no peristyle at all. For, in the first place, the foundations that supported the stylobate are of different material from those of the inner temple: the latter are built of the blue limestone taken from the Akropolis itself; the former are constructed of the hard Peiraeus stone. This difference of itself at once suggests with strong probability the inference that the ναός proper is older than the peristyle and this a later addition. But there is a further point of difference that is of still greater significance: the substructure of the cella, the inner sanctuary, shows faint indications of a striving toward horizontal courses in the masonry, though in reality the effort has succeeded only with the uppermost stones and at the corners.⁶⁵ The foundation walls of the colonnade, however, are at the bottom polygonal and scarcely hewn, but above they are carefully cut with both horizontal and vertical surfaces and neatly fitted.

All the circumstances connected with the discovery of the various parts of this temple, and especially of those parts built into

⁶³ Cf. DÖRPFELD, *Mitth. Athen*, XI, p. 340.

⁶⁴ Cf. I.A. I, 32; DÖRPFELD, *Mitth. Athen*, XII, p. 38.

⁶⁵ Cf. DÖRPFELD, *Mitth. Athen*, XI, pp. 345–346.

the Akropolis walls, show that it belongs to a time previous to the Persian wars. When the *varaōs* was built we can never discover, but with reference to the peristyle we have more exact chronological criteria: the substructure is with respect to material and technique precisely like the foundations of the Olympieion at Athens, which, as is well known, were laid by Peisistratos, as well as those of other buildings of the same date.⁶⁶ We shall be entirely safe, therefore, in concluding that it was in the age of Peisistratos that the peristyle was added to the old temple, and the style of the architectural fragments of the upper parts also of the colonnade is strongly corroborative of this conclusion.

The pediment of this new peristyle was ornamented with a plastic group—Athena in the battle of the gods against the giants.⁶⁷ The Athena herself is partly preserved (Pl. XVIII), and her position shows that the battle is already decided in her favor. Her enemy—Enkelados (?)—is also not entirely lost.⁶⁸ And in addition to these we may with Studniczka⁶⁹ recognize in the giant warrior striding toward the (spectator's) left some other deity participating in the fight.

There prevails in all the fragments a degree of vigor and animation far surpassing that found in the Aeginetan marbles. Above all is this true of the Athena. The large, rounded, somewhat protruding eyes of the Peisistratian Athena seem hardly in keeping “with the delicate softness of her cheeks and the exquisitely fashioned lips;”⁷⁰ but that incongruity disappears when we consider that the artist, in fashioning those eyes as he did, was counting upon the effect of height and distance and has presented to us, accordingly, in corporeal reality the epithets *γλαυκώπις* and *γοργῶπις Ἀθηνᾶ*.⁷⁰ Still, the animation and vigor of the Peisistratian pediment, over against the cold formality and lifelessness of the Aeginetan pediments, are not sufficient cause for assigning, as has been done,⁷⁰ an earlier date to the Aeginetans than to these fragments from the Akropolis. Another consideration of far more

⁶⁶ E. g., the older temple at Eleusis.

⁶⁷ The fragments are published by STUDNICZKA, *Mittb. Athen*, XI, p. 187.

⁶⁸ STUDNICZKA, frag. 9a–12.

⁶⁹ L. c., p. 180.

⁷⁰ STUDNICZKA, L. c., pp. 196–197.

importance than vigor of conception and of execution has been overlooked, namely the acquaintance of the *Aeginetan* artists with human anatomy and the skill with which the details of all the forms are worked out. This it is that marks the more advanced stage of artistic development and in this the *Aeginetan* sculptures are vastly superior to the fragments of Peisistratos' pediment. So the *Aeginetans* will keep the place they have so long occupied, about 470 b. c., and the fragments of the Akropolis pediment will take their place in the latter part of the vi century. Earlier than Peisistratos (560-527) they cannot be, for the foundations of that part of the building on which they stood will not admit of an earlier date. Of the later date their style will not admit.

Since, then, everything points with unmistakable evidence to the time of Peisistratos, can we not make him himself responsible for the extension and improvement of the temple with its colonnade and plastic decoration? He stood, as we well know, in a close relation to Athena; he moved his royal residence into her sacred enclosure; he was the first to stamp the coin of Attika with Athena's head; it was he who so enriched her cultus by the introduction of the Great Panathenaia with their magnificent procession and the presentation of the peplos. Who else in his age than the great Peisistratos, the lover of art, who did so much beside for the improvement and adornment of the city of Athena, who else than he should have added to Athena's temple the colonnade and the sculptures that in his day were erected?

By the last excavations upon the Akropolis our acquaintance with the art of this period has been wonderfully enriched, for through them inestimable treasures of pre-Persian sculpture have been brought to light. The "Tanten," as the Germans call that row of archaic female statues, about forty in number, are so well known that they need no more than a passing mention. But it is worth while to notice that even in this earlier period, before the beginning of the Persian wars, Athens was an art centre, and that there were then busy in Athens a great number of sculptors, both native and foreign, whose works, some with signatures and some without, have been recovered in comparative abundance from the débris of the Akropolis. Let me mention, for the sake of example, only a few such well known names as Endoios of Athens (?), Kle-

oitas, Aristokles, Aristion of Paros, Kallon and Onatas (Mikon's son) of Aigina, Theodoros⁷¹ of Samos (?), Archermos of Chios,⁷² and Antenor. But through these excavations we have also made the acquaintance of sculptors who were before entirely unknown to us; for example, Evenor,⁷³ Eleutheros,⁷⁴ Philon,⁷⁵ and many others.

Besides these sculptures in marble and stone, a great many pieces of bronze have been found—some in the round, some in *repoussé*;—and we must not forget to mention the terracottas and the invaluable fragments of vases that have settled forever the furious strife over the chronology of vase-paintings and vase-painters.

People are accustomed to picture the Akropolis of this period to themselves as comparatively empty. But that seems not to have been the case; we have seen there a stately temple of Athena, a complex temple of Erechtheus and Athena together, a temple of Zeus Polieus (?), a Herakleion, and the royal palace of the ruling prince. But that is not all; even in this archaic period there had been gathered together about these sanctuaries in the course of time a great host of statues and altars and votive offerings of every sort. The pre-Persian votive inscriptions that have been brought to light form, we may safely say, the very smallest part of the whole number that were there before the Persian invasion, and yet over three hundred of them have been recovered from the ruins left behind by the barbarians. These votive offerings were the gifts not only of private individuals, but also of the state. Among the latter class, though marking the very end of the period under discussion, the monument to the heroism of Aristogeiton's mistress Leaina, the tongueless lioness in bronze, which survived even the devastating rage of the Mede and was still seen in the Propylaia even by Pausanias (I, 23, 2), should not be passed without mention.

Of no less interest, to say the least, is the famous bronze quadriga, seen by Herodotos (V, 77), and more than half a millennium later by Pausanias (I, 28, 2). It was erected from the tithes of

⁷¹ *CIA*, IV, 2, No. 373²⁰

⁷² *Ibid.*, No. 373²⁵

⁷³ *Ibid.*, No. 373^{26, 28}

⁷⁴ *Ibid.*, No. 373¹⁰²

⁷⁵ *Ibid.*, No. 373¹⁰⁴

the ransom, two minae per man, paid by the Boeotians and Chalcidians for their soldiers taken captive by the Athenians in the great double victory of 507 b. c. Concerning this monument many questions have arisen to which the future, we trust, may find some universally satisfactory answer; for as yet, in the case of some of the problems, no attempt even has ever been made to solve them, while others have been answered in every conceivable way, but are still unsettled. Pausanias⁷⁶ mentions the chariot, and from the context it is clear that he found it near the so-called Athena Promachos, between this and the Propylaia. But Herodotos gives us what at first sight seems to be an almost exact location of this celebrated work of art: *τὸ δὲ (the chariot with its four horses) ἀριστερῆς χειρὸς ἔστηκε πρῶτον ἐσιόντι ἐς τὰ Προπύλαια τὰ ἐν τῇ Ἀκροπόλει,* which is usually translated: "It stands on the left just as you enter the Akropolis through the Propylaia." But this the Greek by no means says. What the text of Herodotos does say is that "the first thing you see on the left as you enter the Propylaia is the bronze chariot." The trouble is that interpreters have thought of the Propylaia as a gate in a modern fence, and not as it is, a great building with a deep hall in front and another in the rear with doors connecting; in other words, the Propylaia might fairly be called the "vestibule" of the Akropolis. As our text stands, then, it cannot be otherwise translated than substantially in the way I have suggested. If, then, the reading *ἐσιόντι* is correct, Herodotos must mean that the chariot stood in the Propylaia; for the first thing you see when you enter a vestibule is not something several rooms beyond.

Now begins the trouble. Weizsäcker⁷⁷ locates the monument in the east portico of the Propylaia and others have followed him; Michaelis⁷⁸ mathematically proves this hypothesis to be untenable. Bursian⁷⁹ with greater probability puts it in the west portico; but

⁷⁶ That he calls it *ἀριστερά* and not *τέθριππος* does not, in a writer like Pausanias, necessarily imply, as has been supposed, that the horses were gone and only the car left, though of course they may have been carried away long before his day.

⁷⁷ *Arch. Zeit.* xxxiii (1875), p. 46.

⁷⁸ *Mitth. Athen.* ii, pp. 95 sg.

⁷⁹ *Litt. Centralblatt*, 1875, col. 1080.

no unprejudiced reader of Pausanias' description of the Akropolis can grant even the possibility of that. For Pausanias came that way in order to reach the Pinakotheké, and it is not in accordance with his strictly topographical method to have passed by so important and interesting a monument or one so ancient, and then to mention it, as it were, in an appendix, after he has made a complete tour of the whole inner Akropolis with its sanctuaries and its monuments, and is on the point of leaving.

Ernst Curtius⁵⁰ rejects both sites and, emphasizing the future meaning of *εἰμι*, which is often especially strong in the participle, translates : "as you are on the point of stepping into the Propylaia, you find on your left the chariot, etc." In accordance with this interpretation he puts the quadriga immediately in front of the west portico of the Propylaia. This is just as completely out of harmony with Pausanias as the interpretation that brings the quadriga into the Propylaia; and, furthermore, as Wachsmuth in Fleckeisen's *Jahrbücher* 1879, pp. 18-23, has proved at length, it is out of all harmony with Herodotos' usage of the expression *ἔστιντι* (*ἔστιντι ἔξιντι*, *ἔξινοι*, etc.) For when Herodotos says that an object is *ἔστιντι ἐν δεξιᾷ* or *ἀποτερά* without any more exact local designation,⁵¹ he always means something on the inside of the enclosed space of which he is speaking. Moreover the participle of *εἰμι* is not only not always strongly future, but is often relatively present or even past in meaning. Therefore, finding all these attempts to reconcile topographical necessity with the words of Herodotos to be futile, Wachsmuth declares the text corrupt and writes for "ἔστιντι ἐς τὰ Προπύλαια" "ἔξιντι τὰ Προπύλαια" and places⁵² the monument, as other topographers⁵³ do, in exact conformity to the description of Pausanias, on the left side of the road from the Erechtheion to the Propylaia, and not far from the latter.

But are not all these scholars taking some things for granted that are by no means so very certain? Is it certain, as all these men assume, that Herodotos is talking about the Mnesiklean

⁵⁰ *Arch. Zeit.* XXXIII, pp. 54 sg.

⁵¹ Cf. also HDT. I, 51.

⁵² See also WACHSMUTH, *Stadt Athen*, I, p. 150.

⁵³ Cf. MICHAELIS, *Mitth. Athen*, II, p. 96; LEAKE, *Topogr. of Athens*, I, p. 351; BAENR, *Ad Hdt.* v, 77.

Propylaia, built 437-432? Granting that Herodotus returned to Athens after the beginning of the Peloponnesian War, is it not possible, or even probable, that the fifth book was finished before his return?⁸⁴ And if so, how can we know that he altered this one sentence so as to apply to the change in the entrance to the Akropolis? If, then, Herodotus had in mind the older Propylaia, all these great Germans are quarreling over a difficulty that does not exist. These questions can perhaps never receive a final answer. But so much may be said, that while Herodotus may possibly have been acquainted with the Propylaia of Mnesikles, he certainly was well acquainted with the older Propylaia; and if he had that in mind when writing the passage in question, then there is no difficulty either of fact or of interpretation.

If our text of Herodotus is correct—and the burden of proof rests upon those who deny it—then the chariot must have stood in the old Propylaia, or just in front of it. In it there was an abundance of room even for this colossal monument; and when

⁸⁴ KIRCHHOFF (in his exceedingly able and keenly critical essay *Ueber die Abfassungszeit des Herodotischen Geschichtswerks*, 2d edition, Berlin, 1878, pp. 12-18), proves beyond the shadow of a doubt that the first two and a half books of Herodotus' history were written in Athens, before his departure for Thurioi in 448-2, and he makes it equally clear that from III, 119 to about V, 77 (the passage in which mention is made of the Propylaia), was written at Thurioi before his return to Athens, 432-1. But, with the exception of this one unfortunate passage (V, 77), there is nothing whatever in his history to indicate that Herodotus ever saw Athens again until we come to VI, 98. For my part, I do not think that we have any sufficient grounds for supposing that he ever came back to Athens at all. Kirchhoff, furthermore, overlooks entirely the fact that there was an older Propylaea, and thus fails to see the possibility that Herodotus may be speaking of that, just as, in his first edition, he had proved that Herodotus was in Athens in 431-30 by the historian's mention (VII, 162) of a funeral oration by Pericles; this funeral oration he at once identifies as the famous oration over the dead of 431-30, overlooking the fact that Pericles had delivered another funeral oration some nine years earlier over those who had fallen in the campaign against Samos; and this, according to Kirchhoff himself, in his second edition (p. 19, note), is the one referred to by Herodotus. Upon the hypothesis that Herodotus is speaking of that older Propylaia, our passage is easily explained and understood without the supposition that when he wrote it he had already returned from Italy. To me, therefore, it seems more than possible that our passage was written before Herodotus saw the new building at the entrance to the Akropolis (if he ever really did return from Thurioi), and that he afterward failed to note the change. Such an oversight would not be in the least surprising; even Thukydides neglected to correct his statement that there had never been but one earthquake felt on the island of Delos (THUK. II, 8; cf. Hdt. VI, 98), although he certainly must have discovered his mistake before his work was done.

Perikles and Mnesikles began with their new plan and removed almost all traces of the older gateway, the chariot, whether it stood actually inside or immediately in front of it, had to be moved and it was moved to a new site not far away. It was set up upon a new basis—perhaps the substructure 2½–3 metres long, still to be recognized near that of the so-called Athena Promachos (see PL. xv)—and the inscription was renewed upon it. I say renewed, for a part of the new inscription is still preserved and the letters bear the character of the latter part of the Periklean age.⁵⁵ In addition to this remnant of the renewed inscription we have also the recently discovered fragment of the older inscription in characters that antedate by not a few years the age of Perikles.

Still there is another question that must be considered here—the date of the quadriga's erection. Was it set up immediately after the victory, that is, in 507–506? If so, how did so valuable a piece of metal escape the devastations and the greed of the Persians? 'Tis true the Leaina was neither destroyed nor carried away; but in the case of the chariot we have no evidence. The inscriptions we possess are certainly considerably later than 507; was the monument also, as well as the inscriptions, first made at a later date? Or was the original inscription alone twice in turn, perhaps, replaced with the newer ones which we have? And if the monument was erected in 507, perhaps it was destroyed or carried away by the barbarians, and what both Herodotos and Pausanias saw was a copy of the older statue, like the group of Harmodios and Aristogeiton. Perhaps, however, the Persians only overturned and damaged the old monument of 507, which was thereupon repaired by the Athenians and provided with a new inscription—the older one of the two that have come down

⁵⁵ The epigram, given entire by Herodotus (v, 77), is as follows:

Ἐθνεα Βοωτῶν καὶ Χαλκιδῶν δαιμόνατες
Πάτητε ἈΘΗΝΑΙΩΝ ἘΡΓΑΜΑΤΩΝ ἐν πολέμοι
Δεσμῷ ἐν ἀχλαδεντὶ σιδηρέῃ ἔσθεσαν ἵβριν·
Τὸν ΠΙΠΟΤΣ ΔΕΚΑΤην Παλλάδη τὰς δ' ἔθεσαν.

The Periklean inscription (*ClA*. I, 334; in fac-simile, КИРСИНОФF, *Monatsberichte der Berl. Akad. der Wiss.* 1869, pp. 409 sq.) was complete in two long lines, each containing one hexameter and one pentameter, and the letters preserved are these: ηγαλον ἄργυρα
..... ππὸς δεκά

to us. And perhaps again, like the "Promachos," it was never erected at all until long after the event it was intended to commemorate. This last again is Kirchhoff's hypothesis,⁸⁶ and he finds no more fitting occasion for its creation than Perikles' victory over the sons of those same Boeotians and Eubœans in 446 B. C.⁸⁷ It is, however, apart from the fact that we have the inscription in letters much older than 446, extremely improbable that through all these subsequent wars with their neighbors, the life and death struggle with the powers of Asia, and the accomplishment of their stupendous building projects which followed—that through all these sixty years of vicissitude and unexampled outlay, such a fund could have been sacredly kept apart for its original purpose.

Thus we have established several things beyond fear of successful contradiction: 1) Herodotos is undoubtedly speaking of the pre-Periklean Propylaia. 2) The chariot and horses he describes stood in his day in the old Propylaia or, if we take the participle *ἐστόντη* in its future meaning, just in front of the old Propylaia. 3) The monument in question changed sites at least once and possibly twice: a) Before the Persian wars it may have stood not far from the west front of the old Athena temple, where, as we know, were hung the fetters in which the captive Boeotians and Chalcidians had been kept bound, which fetters formed a part of the same votive offering as the quadriga (Hdt. V. 77). b) The Persians may have destroyed the original monument or carried it away with them, in which case a new one as nearly as possible like the old was made to take its place and set up in or in front of the old Propylaia; or they may only have broken and injured the old monument, in which case it was repaired, provided with a new inscription—the older of the two we have—and set up in the place where Herodotus saw it—in or in front of the old Propylaia; or else it may possibly not have been erected at all until after the Persian wars, in which case it would have occupied the place indicated by Herodotus, and to it would have belonged our older inscription. c) When the new Propylaia was built, the

⁸⁶ *L. c.*, p. 414.

⁸⁷ Dr. Dörpfeld has kindly called my attention to the fact that, since the discovery of the older inscription, Kirchhoff, in a short article in the *Abh. d. Berl. Akad.* (1889), has withdrawn unreservedly from his former position.

monument was moved into the Akropolis proper and again provided with a new inscription—the later one of the two we have; and here it was that Pausanias saw it.

VI.—THE PERSIANS IN ATHENS.

The year 510 b. c., witnessed the overthrow of the last of the sons of Peisistratos. With the fall of Hippias the magnificent architectural enterprises of his father's house came to a stand-still. The political revolutions that followed the expulsion of the tyrants left the Athenians no time for improving and beautifying their city, and soon the foreign foe demanded for another decade or two their exclusive attention.

It was in the year 500 b. c. that Dareios decreed the utter destruction of Athens. Athos and Marathon were his only reward. It is familiar to every school-boy how, when in 480 b. c. the Persians again approached, only a few aged and helpless Athenians along with the priests and their attendants sought safety in the Akropolis. This handful of people, for the most part unfit for war, took refuge behind the old "Pelasgic" fortifications of their citadel, barricaded the old approach, and then for a long time, weak as they were, held out against the countless hordes of the barbarians. The hosts of Asia directed their attack from the Areiopagos, as centuries before the Amazons had done; they burned the palisade—the "wooden walls," in which the defenders had persuaded themselves to put their trust—and still, with all their numbers, the citadel could not be taken. Only by scaling the wall in an undefended spot, the point above the Aglaurion on the north side, where because of the steepness of the cliffs no one had thought that they could climb up,⁸⁸ the Persians finally obtained possession of the fortress. And then the sacred enclosure with all its sanctuaries and the fortifications which still stood was burned and, as far as possible, destroyed;⁸⁹ the hundreds of statues and other votive offerings that had been gathered about the temples were either carried away by the rapacious barbarian or, in case their material could be turned to no account, thrown down

⁸⁸ HDT. VIII, 52; see p. 484.

⁸⁹ Ibid. 53: τὸ ιρδὲ συλησαντες ἐπέρησαν πᾶσαν τὴν Ἀκρόπολιν κ. τ. λ.

and mutilated ; even the pedestals did not escape the devastating rage of the Persian. The ruin was complete.

Accordingly, a few days later, after the retreat of the invaders which followed their overwhelming defeat at Salamis, the returning Athenians beheld amongst the ruins of their sacred rock only a few dismantled, smoke-blackened walls ; perhaps the most of the great columnus of the largest temple there, the Temple of Athena, were still standing ; for the Persians in all probability could not destroy the whole edifice to its very foundations. They burned what could be burned, and broke in pieces what they could ; but the temple walls and the columns were for the greater part left standing. That is obvious, even to the most casual observer, from the present condition of the architrave, triglyphs, metopes and cornice pieces built into the north wall of the Akropolis. These architectural members of the ancient temple, built into the wall in the manuer in which we now find them, were not taken from the ruins of a collapsed building, but as the state of their preservation shows, they were carefully taken down from a building yet standing and placed with evident design in the position that they now occupy. Indeed, with the means at their command, the Persian soldiers would not have been able to destroy utterly a temple of the magnitude of the Hekatomedon ; they could only set it on fire and deface it. As long as gunpowder was unknown, the destruction of buildings in time of war could be complete only when they were of wood or other light material. To realize this fully, let us think, for example, of the temple at Corinth, of which, albeit the city was so many times completely destroyed, so much is still standing.⁹⁰

Immediately after their return from Salamis, the Athenians proceeded to restore temporarily their temples and their altars. New buildings were, for the present, entirely out of the question ; for in the very next year (September, 479 b. c.), owing to the treacherous policy of Sparta, the Akropolis fell a second time into the hands of Mardonios, who at first spared Attika purposely, still cherishing the hope of winning the Athenians over to his side ; but when he failed in this, he then destroyed everything that had

⁹⁰ Cf. DÖRPFELD, *Mith. Athen*, xv, p. 424.

chanced to escape in the preceding year.²¹ Again returning from their temporary exile, the Athenians had not much more than a great heap of debris where once the glories of the age of Peisistratos had shone. How complete the destruction was we have most eloquent witnesses in the statues and architectural pieces, which, during the last few years, have again come forth from the ruin then created.

But when the enemy was gone and Hellas again breathed freely, the brave "sons of the Athenians" resolved that their old Kekropia should rise from its ashes in a new and brighter glory than their fathers had ever dreamed of. Themistokles, indeed, the great man who had safely piloted his country through the storms of 480–478, and who for centuries left the stamp of his genius so indelibly impressed upon the history and policy of Athens, tried to induce his countrymen to abandon their ruined homes and found a new empire about the Peiraeus Bay. But it proved even more difficult to persuade the Athenians to leave their Akropolis with its shrines and sacred memories than it was to win the Romans a century later from the ruins of their Palatine and Capitol to a new and fairer home at Veii; and there, like the Romans, they staid, determined to see the magnificence of their new plans realized.

VII.—THE REBUILDING.—THEMISTOKLES-KIMON.

The Akropolis lay in ashes. It was a spot as worthy of a glorious resurrection as the need was great. On the very spot where the enemy had vented their wildest fury and in barbarian insolence had outraged the goddess herself, there the new splendor was most loudly to proclaim how Athens, with the help of the gods, whose sanctuaries had been burned, had fought and won against countless odds and laid the foundations of undreamed-of glory.²²

The leaders knew, however, that before all these plans should be accomplished a number of years must pass. In the first place,

²¹ Hdt. ix, 18 : ὑπέσχωρε ἐμπήρας τὰς Ἀθήνας καὶ εἶ κού τι ὅρθι ηὐτῶν τειχέων ηῶν οἰκημάτων ἡ τῶν Ιρών, πάντα καταβαλῶν καὶ συγχώσας—except, as we learn from Thukydides I, 89, 3, the few houses occupied by the Persian officers.

²² Cf. WACHSMUTH, *Stadt Athen*, I, p. 589.

the whole lower city was to be surrounded with a wall, in order that in future the inhabitants might not be compelled, at the approach of a dangerous enemy, to flee from their country and leave their homes and the temples of their gods to be mercilessly plundered and burned.²³ And in the next place, they were to adorn anew the sacred hill of Athena. Accordingly, they found it necessary to restore their temples and altars again only temporarily in a manner sufficing merely for the barest necessity. This includes, of course, the ancient temple of Athena as well as that of Erechtheus; for it were absurd to suppose that from the time of the Persian wars until the completion of the Parthenon—forty years—the protecting goddess of the city should have remained in total want of any sort of temple, or that the Athenians, especially during this period, when the amount of their public moneys and the number of their votive offerings increased so vastly, should have remained so long without a treasury in which to preserve them. Will any one interpose that the old Erechtheion may have been used for that purpose? No; for, in the first place, it was too small; in the second place, it served other purposes; and besides, on what possible grounds should we suppose that that sanctuary should be restored sooner than the temple of Athena? The conclusion is irresistible: the Hekatomedon must have been restored at once. Still no attempt was made to restore the ancient splendor of the old building, for the very reason that they had already begun to build on the more splendid new temple of the Polias. Therefore, paying no attention whatever to the colonnade or other outward ornament, they simply put the cella and the opisthodomos in order and made the necessary repairs. That the colonnade was entirely disregarded we can plainly see from the fact that when they came to rebuild the Erechtheion, nothing stood in the way of their placing the porch of the Korai immediately upon the pillarless stylobate of the old Hekatomedon. In just what the repairs consisted we can only surmise: a new roof, of course, was necessary as well as new doors; the holes in the walls were filled up and perhaps the whole building repainted. And then once more the treasure of Athena and the vessels and other utensils used in the sacred processions found secure keeping

²³ Cf. DÖRFFELD, *Mitth. Athen*, XI, p. 168.

in the old opisthodomos, and here were deposited in 454 b. c. the funds of the Confederacy, which were in that year transferred from Delos to Athens.⁹⁴

Even these repairs, however, as I have said, were only temporary; for Themistokles had, perhaps, already planned the reconstruction both of all the sanctuaries of the Akropolis and of its circumscribing wall, and had begun to adorn in a manner worthy of such a capital the city that had now become the head of Hellas. A more favorable opportunity could never be offered than that which now came to Themistokles and his three great successors. Architecture, sculpture and painting were just on the eve of their first full perfection and glory; the people were elated by the fame of their glorious city; their navies ruled the seas; their harbor was the market place of the Grecian world; the tribute of a hundred cities and islands was poured into the coffers of Athens; the finest marble for the new works was to be had within a few miles of the city in almost inexhaustible quantities; and Athens was not wanting in the minds to conceive the plans nor the artists to execute them.⁹⁵

But only after the entire completion of the strong defensive wall about the city could Themistokles proceed to the work of adorning the citadel. Whether he himself began this work and really built the north wall which bears his name is not certain. At any rate, Kimon, if, indeed, he did not conceive the plan, carried forward the work, and the recent excavations have made it evident that he should be accredited with completing a greater portion of the great plan than has been heretofore attributed to him. To be sure, the most of the glory justly belongs to Perikles and his great artists; theirs it was to give to the Akropolis of Athens that radiance which made it for all time the centre of art for the world. But even the project that Kimon began to realize calls for our admiration and our wonder, not only on account of its magnitude, but on account of its political significance as well. It is an eloquent witness of the great national "boom," as we should call it, that followed upon the Persian wars.

⁹⁴ Cf. DÖRPFELD, *Mith. Athen*, XII, p. 200.

⁹⁵ Cf. CURTIUS, *Die Akropolis von Athen*, pp. 7-8.

They must, above all things, erect to the honor of their guardian goddess, Athena Polias, a magnificent temple exceeding in grandeur anything that Hellas had ever known. And to the adequate fulfilment of this purpose the first necessity was to surround the whole Akropolis on the outermost edge of the rock with a mighty, massive wall, which should serve not merely as a wall of defense, but even more as a supporting wall for the mass of stone and earth that was to raise and level the whole citadel to a single great plateau sloping from the middle gradually down to the splendid portal at the lower, western end.⁹⁶ In the execution of this plan the ruins of the older buildings destroyed by the Persians were turned to most excellent service. To utilize them for the new buildings was of course out of the question, for these were all to be of marble, while without exception all the pre-Persian buildings were of poros, having, at most, a few single architectural designs of marble. But for his great Akropolis wall Kimon made unlimited use of all sorts of fragments from the old dismantled temples —ashlar blocks, pieces of entablature, drums of columns, in short all sorts of old building material. It is also for the most part easily recognizable that in the employment of such material they endeavored not to have the old building material appear as such, but, by working off their former outlines, to make them look as much like the new squared building stone of the wall as possible.⁹⁷ Such is the case, for example, with the thirteen poros drums from the colonnade of the Hekatomedon that are built into the south wall above the theatre and the Asklepieion; for their new purpose they were worked over into cubic blocks in such a way that only single flutings on the corners betray the end they originally served. On the other hand, however, when we find those architectural members of that same old Athena temple built, without the stroke of a chisel, into the north wall and in the most conspicuous spot about the whole Akropolis, we may be sure that some definite object, higher than the mere utilization of old material was aimed at by the builders. These portions of epistyle with the corresponding triglyphs, metopes, cornice, drums and capitals, were, as before remarked, carefully taken down and built into this wall in

⁹⁶ Cf. DÖRPFELD, *Mittb. Athen*, xi, p. 165.

⁹⁷ *Ibid.*

precisely the same order and relative position that they had occupied on the old temple of the Polias; and since this is true, their present arrangement, or even their presence in the wall in their original form, is not due, as most people since Leake have thought, to the haste in which the wall was thrown together by Themistokles, but they were deliberately planned and carefully set up in the most conspicuous part of the wall on the north side of the Akropolis toward the city proper, to serve not only as an ornament to the wall, but also as an "eternal reminder to the people of the national hatred toward the Barbarians."²⁸

The manner and method on which they proceeded in the construction of this great retaining wall—for such the whole Kimonian wall is—and the filling which it was intended to support are clearly shown by the subjoined photographs (PL. xvi). The builders did not first construct the wall to its full height and then fill in the triangular space behind it with earth and débris, but on technical grounds, to make the wall the stronger and save scaffolding besides, as soon as they had put up two or three courses of ashlar the space behind was filled up with stones of the greatest variety: many an old building stone which, on account of its irregular form, or because it had been too badly injured in the late catastrophe, could not be used in any of the new works, found a place here as filling. Converted to the same purpose we find mutilated statues, fractured pedestals, broken slabs containing inscriptions, and all sorts of other ruins that lay at hand upon the Akropolis. What else could they have done with such rubbish? A statue minus head or arms or legs was at that time as worthless as, for instance, a broken piece of cornice or a cracked drum from a column. Behind the Akropolis wall, accordingly, with the rest of the debris left by the Persians, that invaluable array of archaic statues has lain buried all these centuries, preserved against the destroying hand of time and of vandal, and awaiting resurrection in these latter days.

Such were the component parts of the first stratum of the filling material behind the new wall. Over this stratum of stones and fragments of every description they spread a layer of earth,

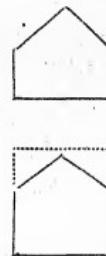
²⁸ BEULÉ, *L'Acropole d'Athènes* I, p. 97.

in order that the workmen in laying up the next course of the wall might have a better platform on which to stand, while at the same time the earth served to make both wall and filling more solid. And while the workmen hewed and trimmed the blocks of stone in the next course, this layer of earth itself in turn became covered with a thin stratum of splinters chipped from the porous blocks of which the wall is built.

The mass of filling piled inside and against the Kimonian wall consists, therefore, as may be clearly seen in the photographs (Pl. xvi), of a repeated succession of three distinct, approximately horizontal strata, composed by turns of 1) comparatively large pieces of stone, 2) earth, and 3) chips of porous.⁹⁹ In many places also the old "Pelasgian" wall, lying inside Kimon's new wall, was covered up in the process of building and so itself also served as filling.

To make clear the relative position of the mass of débris used in grading up the Akropolis to the magnificent plateau as we know it, let me make use of Dr. Dörpfeld's illustration: "Let us compare the vertical section of the natural rock of the Akropolis with the vertical section of an ordinary gable-roofed house. The sides of the house correspond to the steep sides of the Akropolis, and the oblique lines of the roof to the upper surface of the hill, gently sloping, as it originally did, from the middle toward the two sides [—thus: Now let us suppose the vertical walls of the house raised to the height of the ridge-pole [—thus: and we have what corresponds to Kimon's wall; fill in the two triangular spaces thus made, and we have the Akropolis as it was when the wall was finished."

The wall itself, which was probably not fully completed until Perikles' time, is in accordance with its designation as a revetment for the embankment behind it, very different in different places. Along the *temenos* of the Brauronian Artemis, for example, and adjoining it on the east, the live rock of the Akropolis extends on a level plane almost to the south wall, and this is true to a large extent on the north side as well; so that in these places there was no need of a retaining wall, for there was nothing



⁹⁹ DÖRPFELD, *Mittb. Athen*, xi, pp. 166-7.

to fill up except a few fissures and crevices, and we find there, about the upper edge of the rock, an ornamental wall rather than a revetment. On the other hand, in front of the Parthenon, in the southeast corner of the Akropolis, the rock inclines rather steeply to the south and here a deposit of earth on a gigantic scale was found necessary. And as a matter of fact, the piles of earth and stone in this quarter were from ten to fourteen metres high. Commensurate with such a mass the wall, which, as far as it can be seen, is based immediately upon the rock, is not less than 15 to 16 metres high and 6.60 to 7.20 metres thick—capable of resisting an enormous pressure from the earth piled up within.

In this way the upper surface of the Akropolis was increased by about one-fifth its former size and assumed an essentially different appearances from that which it had presented before. In the course of this essay we have seen that ancient, rugged, chasmrent rock filled up so as to present a series of little plateaus; we have seen it occupied by dwellings and smaller sanctuaries; we have discovered there a splendid royal palace and a gigantic, nine-gated fortress; in the age of the despots there arose a stately temple and probably other buildings; but with all this, the general form of the hill had been but little affected—a ridge above, sloping down to precipitous sides. But with the addition of Kimon's wall the whole appearance of the Akropolis is changed; it is now one great plateau, sloping only from the middle to the portal in the west.

What now, we next ask, did Kimon build upon the plateau thus obtained? First of all, as a memorial of the glorious struggle just past, this unwearying old Persian-fighter had Pheidias construct from the booty that fell into the hands of the Athenians at Marathon¹⁰⁰ the far-famed, colossal statue of Athena in bronze—the so-called Athena Promachos. The epithet Promachos, like Parthenos, is of comparatively late origin; earlier she is known as “the (large) bronze Athena”¹⁰¹ or, “the Athena of

¹⁰⁰ Or with the Persian gold that the arch-traitor, Arthmios, brought with him to Hellas with which to Medise his fellow-countrymen. Cf. DEM. XIX, 271; DIN-ARCH, II, 24.

¹⁰¹ ARISTIDES L, p. 408, 15. 1; PAUS. IX, 4, 1; DEM. XIX, 271; OV. EX PON-to, IV, 1, 81.

Marathon."¹⁰² Unfortunately we can gain from ancient literature and art no exact knowledge with reference either to the location or to the pose of this famous statue. Regarding the first question, topographers have usually, and with probable correctness, identified as the basis of the Promachos the large, rectangular pedestal, in part still preserved, about half way between the Propylaia and the old temple of Athena (Pl. xv). The second question presents still greater difficulty; on this point the ancient authors are silent and the evidence of the few bronze coins in existence with representations of the Akropolis are utterly untrustworthy, for they present now a warrior-goddess with wildly brandished spear and uplifted shield, and again a peaceful goddess of the Parthenos type with spear and shield resting at her side and with a Nike on her hand. We are, therefore, left to our own devices to restore the monument. We know that the statue was colossal; this our sources tell us;¹⁰³ but how high it was can never be told; we know only that without the pedestal its height was less than sixty feet. And it seems to me, in accordance with the data we have, most probable that the goddess stood armed, looking directly toward Salamis, where she had given her people the last assistance within their own territory against the barbarian hosts. In her right hand she held her lance, not brandished aloft, as many have supposed, but planted upright upon the ground beside her with the point projecting slightly above her helmet's crest.¹⁰⁴ Her shield also, which Mys, the famous engraver, about a generation later adorned with a Kentauromachia and other scenes¹⁰⁵ after drawings by Parrhasios, she supported with her left hand, while the lower rim rested upon the ground; held otherwise, the effect of this new ornamentation by Mys, which was certainly intended to be seen, would have been entirely lost.

The old fortifications on the west were, as we have already seen, as far as it was possible in the case of so massive a structure and with the means at their command, dismantled by the Per-

¹⁰² ARISTIDES XLVI, p. 218, 6 1.

¹⁰³ PAUS. I, 28, 2; IX, 4, 1; PLIN. XXXIV, 54; DEM. XIX, 271.

¹⁰⁴ This seems to me to be stated by PAUS. I, 28, 2, beyond the possibility of a misunderstanding.

¹⁰⁵ PAUS., *loc. cit.*

sians. It must, therefore, have been one of Kimon's first tasks to make the citadel as impregnable again as it had been before. And that the old gateway was not essentially changed, but only repaired and perhaps improved in outward appearance—that we have sufficient proof in the remains. In the angle formed by the southwest wing with the middle hall of the Mnesiklean Propylaia is to be seen the main portion of what is left of the older gate-way (abc, on PL. xv). It was planned to be an integral part of the old "Pelasgic" fortifications; the corner (b) is built into the end of the upper wall of the Pelargikon; the southeast side of this older Propylaia (iab) was a solid wall of poros blocks faced with thin marble slabs, while the adjoining wall on the southwest ends in an anta of marble (c). Next to the anta, on the northwest, we see the beginning of a marble threshold, on the continuation of which presumably columns once stood. We should notice also that, conformably to its design as an organic part of the Pelargikon, the old Propylaia faces southwest, whereas the orientation of the Mnesiklean Propylaia is directly west. Corresponding to the façade in the southwest and on a line parallel with it, we find in the central doorway of the present building the natural rock cut in the form of steps (f) to receive the foundation stones of some building older than the Periklean Propylaia; this marks the line of a colonnade (ei) on the east front, like the one opposite on the west.

This older portal has often been called Kimon's Propylaia. It is, however, probably much older than Kimon and was merely repaired under his direction, like many another building left in ruins by the Persians. That it was in existence before his time is rendered probable, though not absolutely certain, by the manner of its destruction; for evident traces of fire here and there on ruins¹⁰⁶ that have remained buried since the days of Perikles point almost beyond a question to the great conflagrations of 480 and 479 b. c. We may, therefore, safely conclude that the Akropolis from the beginning had a great gate at this spot, that the gateway which we have been considering had the same general outline, at least, as the one built by the "Pelasgians," that the marble decorations may have been added, perhaps, by Peisistratos

¹⁰⁶ Cf. Ross, *Arch. Aufs.* I, pp. 78 and 79.

or his sons, who did so much to beautify their city, that it shared in the general havoc wrought by the barbarians and in the general repairing done by Themistokles and Kimon.

It was beyond the power of the Greeks of old to conceive of one only God, omnipotent, eternal, alone creating and governing the universe, and yet there was implanted in their souls such a longing for one god, that individually, in families and in tribes, they directed their worship not to the multitude of national divinities,¹⁰⁷ but to some one deity to whom *καὶ ἐξοχὴν* they paid their homage and their vows and on whom they relied for help and support in success and defeat. And so each state had some one deity whom that state honored above all other gods and who stood nearer to it than to any other and nearer than any other god. As Hera was to Argos or Poseidon to Corinth, so Athena was to Athens. She had now once more saved her city and her people and given them new glories; and the first as well as the greatest and grandest of all Kimon's undertakings was the erection in her honor of a temple that should far surpass in size and in splendor the one that had been burned. Indeed, it was to be even larger as planned by Kimon than it proved to be as completed by Iktinos and Kallikrates. Kimon's workmen had begun, almost at the very beginning of his administration, even before¹⁰⁸

¹⁰⁷ Cf. ERNST CURTIUS, *Die Akropolis von Athen*, p. 6.

¹⁰⁸ The priority is certain on technical grounds; at a slight distance from the substructure of the Parthenon and nearly parallel to it, we find a wall of inferior construction (HJ, on PL. xv). The small interval between this wall and the temple was found by the excavators filled with alternating layers of the debris left by the Persians, and of poros chips made by the masons at work on the basis of the temple. Thus the purpose of this wall and the chronological relations existing between the different constructions in that quarter are made clear; the substructure of the Parthenon was built before the south wall of the Akropolis, with the ten to fourteen metres of grading behind it, was begun. The purpose of the wall HJ was to save the expense and the trouble of so much scaffolding as would have been required for the building of the base of the Parthenon on that side. And so they proceeded, just as in the construction of the wall about the citadel, first laying up one or two courses on the Parthenon, then bringing up their platform—the wall HJ with the filling between it and the temple—and then proceeding as before. When later the plan to raise the Akropolis to one great plateau was put into complete execution and the south wall was built, then this platform, wall and all, was covered up, along with the old "Pelasgic" wall and everything else that had outlived its usefulness.

From this two conclusions of much importance for the history of the Akropolis follow: (1) The foundations beneath the Parthenon were built after the Persian

the erection of the wall on the south side of the Akropolis, to construct the great platform on which was to stand the most magnificent temple that the world has ever seen. The foundations were all done; the great drums for the columns lay already half-finished on the grounds; but Kimon was fated never to finish the stately temple that he had brought thus far toward completion, for in the year 460 B. C., his ungrateful country at the instigation of Perikles sent him into exile from the native land which he had loved so well and for which he had done so much.

LVIII.—THE AGE OF PERIKLES.

With this event, upon which Perikles became the recognized leader of the Athenian state, we enter upon the climax of a period unequalled in all antiquity and never outshone in the whole history of the world. We may say that during the forty-eight years from the calm that began in the autumn of 479 until the first great breakers of the Peloponnesian war dashed over proud Athens, the vastness and magnificence of the building projects executed under the leadership and direction of Themistokles, Kimon and Perikles have never since been equalled and scarcely approached.

By the side of the third and greatest of the three great statesmen stood his friend and co-equal, Pheidias, who superintended during his life at Athens the artistic execution of all the buildings of Perikles. The financial prosperity and the generous ambition of the state placed at his command most abundant means with which to consummate his magnificent plan for transforming the whole Akropolis into one sacred precinct for Athena.¹⁰⁹ "And so," in Plutarch's¹¹⁰ enthusiastic words, "the works grew, all-surpassing in their magnitude, inimitable in their beauty and grace, as every workman vied with his fellow in substituting for

invasion and not by Peisistratos as, previous to the excavations, had always been supposed; and (2) The wall on the south side of the Akropolis was built after, but not long after the substructure of the Parthenon, for otherwise the wall HJ would not have been built at all. *Oj. DÖRPFELD, Mith. Athen, X, p. 275.*

¹⁰⁹ Both HDT. (e. g. VIII, 51-55) and THUK. (e. g. I, 126) call the whole Akropolis *τὸ ι(ε)ρόν*, and so does AR. (Lys. 482-483).

¹¹⁰ *Per.* 10.

mere handiwork elegance of artistic execution; and still the most wonderful feature of all was the speed with which the work was completed. Those edifices, any one of which alone, one might think, would have required the work of many successive generations, were all (*sic!*) finished in the prime of one man's administration. Ease and speed of execution seldom tend to give a work lasting importance or exquisite beauty; while on the other hand, the time expended in the creation of a work is more than repaid in the endurance of the work done. And so we have even greater reason to wonder that the structures reared by Perikles should have been built in so short a time and yet have been built for ages; for as each of them, as soon as completed, was already ancient in its beauty, so, now they are old [almost five centuries have elapsed since their erection], they are fresh and new as in their pristine glory. Time has left no stain upon them; a kind of newness sheds its bloom around them, preserving them untarnished by the ages, as if they were possessed of a spirit that can never fade and a soul that never grows old."

Under Kimon's administration every thing done seems to have borne some relation to the recent struggle for Hellenic liberty; under the direction of Perikles, on the other hand, the public works erected had an entirely different character: it was no longer the Athens that had borne the brunt of war and repulsed forever the Asiatic from the shores of Greece, but the Athens that stood blooming in the plenitude of peace and prosperity at the head of a mighty maritime confederation.

Perikles' first care was to complete the temple of the Polias, that had been begun by his old opponent Kimon; for the Parthenon also must henceforth be considered one of the temples of Athena Polias, and a seat of the cultus of the goddess as Polias. The truth of this statement is placed beyond all question by the following considerations:

(1) The decorations of the frieze cannot lack all ideal connection with the temple that it adorns. Now, the frieze of the Parthenon represents in its whole length a sacred procession given in honor of Athena Polias alone—the Panathenaia, the greatest festival of the Polias; in the very middle of the frieze, directly over the door of the temple, stands the priestess of Athena Polias her-

self.¹¹ And in the cella of this temple the victors in those great games in honor of the Polias were crowned. All this points directly to none other than Athena Polias as the indweller of the Periklean Parthenon. And who else should be? For the Parthenon was certainly a temple with a cultus (the idea of "festal temples," primarily intended to be used in connection with the games and without a cultus, is a myth invented by a German conjecture); and as "Parthenos" was perhaps never, certainly not in early times, a cultus-name, to whom should we *a priori* more fittingly ascribe the largest and most beautiful temple of Athens than to the guardian goddess of the city herself? Still these four arguments, one *a priori*, two from the frieze—the priestess of the Polias in the most prominent position in it, and the representation of the games in honor of the Polias—and, as fourth argument, the fact that the victors in these games were crowned in the temple of the Polias,—all this renders the case only probable.

(2) Fortunately, however, we have more than the logic of probabilities; we can gather from the official names of the temples of Athena a direct and conclusive proof that the Parthenon was called "the temple of Athena Polias" (*ὁ νεώς τῆς Ἀθηνᾶς τῆς Πολιάδος*). In official inscriptions the Hekatomedon is generally termed *ὁ ἄρχαῖος νεώς* (the old temple); such a designation necessarily presupposes the existence of a newer temple, which might be called either *ὁ καινός* (the new) or *ὁ μέγας νεώς* (the great temple), or briefly *ὁ νεώς* (the temple). That this newer temple must be the Parthenon is doubted by no one. Furthermore, in one inscription (*CLA*. II. 464), also an official document, we find *ὁ ἄρχαῖος νεώς τῆς Ἀθηνᾶς τῆς Πολιάδος* (the old temple of Athena Polias). "The old temple of Athena Polias" demands likewise, as a necessary presupposition, the existence of a "newer temple of Athena Polias," which again might be called *ὁ καινός* (the new), or *ὁ μέγας* (the great), or simply *ὁ νεώς τῆς Ἀθηνᾶς τῆς Πολιάδος* (the temple of Athena Polias). Should we find one of these three names, with no closer designation of the temple referred to, we could be certain of one of two things: either the Parthenon would be meant, or else possibly the eastern cella of the

¹¹ MICHAELIS, *Parth.*, p. 255.

Erechtheion. As a matter of fact, the name does occur, and more than once, in the inventories of the stewards of Athena (*cf. CIA. II, 332; Mitt. Athen, VIII, p. 59*); here again we have official documents, which we know for a certainty refer to treasures preserved in the opisthodomos of the Parthenon, and we have as its official name ὁ νεώς τῆς Ἀθηνᾶς Πολιάδος (*the temple of Athena Polias*).¹¹²

(3) Again, it is on all sides granted that the Parthenon was built to supplant the Hekatomedon, which had been burned by the Persians. Now, the Hekatomedon was a temple of Athena Polias; its official name, as we have just seen, is ὁ ἀρχαῖος νεώς τῆς Ἀθηνᾶς τῆς Πολιάδος (*the old temple of Athena Polias*); and it needs no proof that the Erechtheion, which had only just been built, or was not yet even finished, could never be called ὁ ἀρχαῖος νεώς (*the old temple*). What sort of a temple, then, could take the old one's place other than a new temple of Athena Polias?

(4) As a last argument, if further argument were needed, let me add that nearly all the votive offerings, the sacrificial vessels and all the sacred utensils used in the processions belonged to Athena Polias; Athena Parthenos, as far as we can see from the public records, did not possess a single votive offering nor a single obol in cash. How, then, could she lay claim to the largest and most splendid temple of the citadel? And, finally, even the so-called Parthenos of Pheidias is named, in the one inscription¹¹³ that mentions the chryselephantine statue of the Akropolis, Athena Polias, and the name Parthenos, as applied to the statue, is of late origin.

Accordingly to sum up the results of this quadruple proof, we find that the Parthenon is not merely a temple of Athena Polias but the temple of Athena Polias (*ὁ νεώς τῆς Ἀθηνᾶς τῆς Πολιάδος*).

The foregoing explanation makes clear the relation existing between the Hekatomedon and the Parthenon, both temples of Athena Polias. But still it remains for some keen-sighted scholar to discover the relation borne by these two temples to a third, the eastern cella of the Erechtheion—also without a doubt

¹¹² DÖRPFELD, *Mitt. Athen*, xxi, p. 194.

¹¹³ Cf. *Mitt. Athen*, v. pp. 89 sq., and xv, pp. 480 sq., where the inscription is twice quoted.

a νεώς τῆς Ἀθηνᾶς τῆς Πολιάδος (a temple of Athena Polias). Dörpfeld suggests the following as a solution of the problem: "When the stately marble temple [the Parthenon] was completed, the two old poros buildings [the Hekatomedon and the old Erechtheion] looked rather shabby beside the new splendor, and so it was resolved to replace both with a double sanctuary beneath one common roof—the new Erechtheion."

The fallacy in this hypothesis is evident: in the first place, one of these poros buildings had already been replaced by the Parthenon; why should it be replaced again and then still left standing? And in the second place, as was shown p. 478, Erechtheus and Athena had had a common temple under one roof from the beginning. And so we are no nearer the solution of the difficulty than we were before.

Only one other effort to throw light upon this question is known to me: Miss Jane Harrison¹¹⁴ cuts the Gordian knot with the astounding statement that "The belief that the eastern half of the Erechtheion was called the cella of Athena rests, so far as I am aware, wholly upon the testimony of Pausanias. The image was simply one of many curiosities kept in the Erechtheion, and though it lived in the east cella, did not give that cella any particular name. The Erechtheion is, as Pausanias viewed it, a shrine of cults of more or less obsolete significance—a museum for the symbols of these cults. Viewed thus as a museum, etc." Even if Miss Harrison's surmise as to the source of the designation of the eastern cella of the Erechtheion as a shrine of the Polias were correct, still her conclusion would not follow. It was in the Erechtheion, as she grants, that Pausanias saw the old xoanon and the ever-burning lamp of Kallimachos; these two objects are repeatedly and distinctly mentioned by other ancient writers¹¹⁵ besides Pausanias as being in the sanctuary of Athena. Moreover the existence of a temple common to Erechtheus and Athena is, beyond a possibility of a misinterpretation of their words, familiar to the ancient writers from Homer,¹¹⁶ down through

¹¹⁴ HARRISON and VERRALL, *Mythology and Monuments of Ancient Athens*, pp. 508-9.

¹¹⁵ PLUT. *Sulla*, 18; STRAB. IX, p. 396; and others.

¹¹⁶ *Iliad*, II, 546.

Æschines,¹¹⁷ Aristeides,¹¹⁸ Plutarch,¹¹⁹ Pausanias¹²⁰ and Strabo,¹²¹ to Harpokration,¹²² Hesychios,¹²³ Himerios,¹²⁴ Philochoros¹²⁵ and Eustathios.¹²⁶ And finally Miss Harrison upsets her own theory by taking out of her "Museum" nearly all the curiosities that "Pausanias viewed there" and putting them into the opisthodomos of the Hekatompedon, and concludes her whole discussion by implying, if not declaring outright, that the Erechtheion was at one time *the* temple of Athena Polias: "The Erechtheion," she says, "is a museum; it no longer strives to keep its head above the water as the original Athene temple, but sinks with a sense of relief into dignified, because natural subordination." Did important cultus-temples in antiquity naturally sink into mere museums? I leave the unbiased reader to judge.

The question I have raised remains, therefore, unanswered. The relationship existing between the Erechtheion and the Hekatompedon and Parthenon has not yet been discovered and perhaps never will be. Perhaps there was none. It may be that the Polias was worshipped in two or even three shrines independent of one another.

The Parthenon, however, to resume our narrative, is only a part, though the most important part, of the magnificent plan of Perikles and his "table round" for making of the Akropolis one great votive offering for Athena. But scarcely had the Parthenon been dedicated (438 B. C.)—and it was even then not yet entirely completed—when Pheidias was compelled to leave Athens. Nevertheless, the building enterprises of the city went on without interruption; for Perikles' great plan was as yet far from being realized. In the very next year after his departure, Mnesikles began, under the direction of Perikles, to build the imposing portal, which was to prove one of the principal wonders of the Akropolis. And still the citadel was no less a mighty fortress than before.

Five years was the Propylaia in building; in that time the

¹¹⁷ II, 147.

¹¹⁸ XIII, p. 107, 6. (III, p. 62, ed. Dind).

¹¹⁹ *Syntop. Quaest.* IX, 6, p. 741; *Sulla*, 13.

¹²⁰ I, 26, 6–7; I, 27, 1.

¹²¹ IX, p. 396.

¹²² S. v. Βούτης.

¹²³ S. v. οἰκουρδὸν δῆμον.

¹²⁴ Ecl. 5, 30.

¹²⁵ ad Od. I, 356.

¹²⁶ Frag. 146 ap. DIONYS HAL. de Div. 18.

original plans of the architect had to suffer many changes,¹²⁷ and even so, before the structure had received the finishing touches, the Peloponnesian war broke out and the work was suspended never again to be resumed.

And now came the turn of the old poros Erechtheion to be rebuilt; and so some time after the dedication of the Parthenon, work was begun upon the most elegant and unique building of antiquity. After many interruptions this last architectural monument of the glory of Periklean Athens was finally completed in the later years of the Peloponnesian War. In the years of storm and stress, 413–411, all work was necessarily abandoned; but as soon as relief came, as it did through the victories of Alkibiades at Kyzikos in 410, work was at once resumed upon the neglected building; a new commission was appointed, whose first business was to take a complete inventory of the condition of the building. In a similar inventory of the following year we find the work on the frieze progressing rapidly, and in the next year (408–407) the temple was probably finished.

Of the older Erechtheion nothing, of course, is left; the old *μαρτύρια*—the salt spring and the marks of the trident—could not be moved into a new temple, and therefore the old building to the last stone must yield and give place to the new one.

A glance at the plan reveals a curious phenomenon with respect to the Erechtheion; the porch of the Korai is built directly upon the stylobate of the old Hekatomedon; the columns of the temple had long ago been built into the Akropolis wall or otherwise disposed of. Those six exquisite Attic maidens who support the roof are thus made to face squarely against a limestone wall at least twice as high as their heads and almost within arm's length. Such a crying outrage could have been committed by the builders only with the intention and in the sure expectation that the old temple would soon disappear. But did it? In the year 409–408 the Erechtheion was still uncompleted, but it must have been finished soon after that. "In 406–405," says Xenophon (*Hel.* I, 6, 1), "*ό παλαιὸς τῆς Ἀθηνᾶς νεώς ἐν Ἀθήναις ἐνεπήσθη* (the old

¹²⁷ We owe the reconstruction of the Propylaia after the original plans of Mnesicles to the brilliant genius of Dörpfeld. The high-water mark of research in the realm of ancient architecture is reached in his two essays in the *Mittheilungen Athen*, X. pp. 28 sq. and 181 sq.

temple of Athena at Athens was burned);¹²⁸ and in spite of the troubles that followed with the loss of all her power, Athens again, in 395–394, repaired the beloved old temple.¹²⁹ Xenophon's words used always to be interpreted as referring to the Erechtheion; but that Xenophon should have called a temple less than two years old, and perhaps not even dedicated as yet, a παλαιὸς νεώς (an old temple), is quite incredible.

And still for many years after the fire the old temple continued in use. We find again in an official record (*CIA. II*, 758): τάδε ἐκ τοῦ ἀρχαίου νεὼ παρέδωκεν ἡ ἱερεῖα τοῦ ἐπιστάταις τοῦ ἑπλοῦ Θουδήμου ἀρχοντος εἰς τὸν Παρθενῶνα—a list of articles transferred from the ancient temple to the Parthenon in the archonship of Thoudemos 358 (or 354) b. c. With this all official mention of the Hekatompedon ceases.

But how long it still stood can never be precisely known. The Akropolis suffered no violence for centuries afterward, and the present condition of the ruins betokens a late and a gradual disappearance of the building. Pausanias and Plutarch both saw it, and it is altogether possible, if not probable, that it was pulled down like many another building in Byzantine times for building over the Parthenon, Erechtheion, etc., into Christian churches.¹³⁰

But there is no occasion for tarrying over the temples of the age of Perikles. And with such books as Lloyd's *Age of Pericles*, Adolf Schmidt's *Das Perikleische Zeitalter*, Michaelis' *Der Parthenon*, Hertzberg's *Athen*, Penrose's *Principles of Athenian Architecture*, and Ernst Curtius' brief but admirably written and delightfully entertaining dissertation *Die Akropolis von Athen*—with such books as these at every reader's command, a brief and inadequate account of the creations of the days of Athens' glory, such as I might give, would be worse than superfluous. As has been observed in the preface, the picture presented by the Athenian Akropolis in the days that immediately followed Perikles is so

¹²⁸ It may very well have been set on fire by the priests belonging to the new temple, who were, of course, as anxious to get it out of the way as those of the old temple were to save it. Anyway, the former seem to have been tried on the charge of arson; cf. *Dem. XXIV*, 136: καὶ οἱ ταῦτα ἐφ' ὧν δὲ δημόσιος ἐνεπρήσθη καὶ οἱ τῆς θεοῦ καὶ οἱ τῶν δλλων θεῶν ἐν τῷ οἰκηματι τούτῳ ἤσαν ἕως κράτος αὐτοῦ ἐγένετο.

¹²⁹ Inscription published by Ulrich Köhler in *Hermes* II, p. 21.

¹³⁰ Cf. DÖRPFELD, *Mitth. Athen*, XII, pp. 60–61.

fully and definitely known, from the buildings preserved and from literature, that differences of opinion concerning it are possible on minor points only. New discoveries and more penetrating investigations of the monuments we have can make no essential changes in that picture. It is for these reasons that I pass the age of Perikles by, picking up only such fibres as are needed to spin the thread of history.

When Kimon's wall was finished, the Promachos unveiled, the Parthenon dedicated, the Propylaia with the temple of Athena Nike erected, and the Erechtheion rebuilt,—then the Akropolis was essentially complete; and notwithstanding all that the later Greeks and Romans built upon and about it, the Akropolis had years before received everything that gave to it its historical character and its influence upon the world to come. It stood there then, rising grandly above the busy city of commerce and trade in the midst of which it stood, the colossal pedestal of the temples, with all its parts working harmoniously together to one sublime work of art, at last one great and worthy sanctuary to the daughter of Zeus.

In these days also came to the Akropolis a vast number of votive offerings and dedications of every description, brought to the precinct of the goddess on any and every occasion, by individuals and by the State. Of votive offerings on the part of the State, Pausanias mentions several: the Athena Lemnia of Pheidias himself, as well as his (?) Apollo Parnopios, the Hekate Epipyrgidia of his pupil Alkamenes, the Sosandra of Kalamis, the Athena Hygieia of Pyrrhos, Myron's cow, etc.

We have but a very meagre account indeed of these great public donations; and since such is the case with them, how wholly unable must we be to form any correct conception of the overflowing abundance of the offerings that came from private sources to fill the sacred precinct.

IX.—THE PELOPONNESIAN WAR.

The breaking out of the calamitous war with Sparta, draining Athens of her money as well as of the flower of her manhood, was still not enough to put an end to the architectural and plastic adornment of her citadel. In the various shorter or longer inter-

vals of peace the work went on, though it was greatly limited in extent. So, for example, the rebuilding of the Erechtheion especially was continued and completed before the war was entirely over. Besides this, the Akropolis received even during the war many an additional ornament, in the way of offerings of statuary, not only from private individuals, but from the State also. For example, in honor of the victory at Sphakteria a bronze Victory was dedicated and set up upon the citadel,¹³¹ and Nikias, as a token of gratitude for his victories, consecrated to the goddess a gilded Palladion.¹³² The decoration by Mys of the shield of the so-called Promachos, already described, was also made at about this time—a further recognition of the goddess's protecting care. It was, furthermore, not long before 414¹³³ that, by the generosity of Chaererdemus, the Trojan Horse of Strongylion was set up in his place, and that Alkibiades hung up his two Nemean pictures in the Pinakothekē.¹³⁴

But important above all the portraits placed upon the Akropolis in that day is the one of Perikles by Kresilas, familiar to every student through the copies that have come down to us.¹³⁵

And, finally, let us not neglect at least to mention that even in those troublous times Athens did not forget the gods, but at no little sacrifice consecrated new cultus statues, a Zeus Polieus, for example, and an Artemis Brauronia of gold and ivory (?)—the former a creation of Leochares,¹³⁶ the latter of Praxiteles¹³⁷ (probably the elder). Both these new statues, be it noted, were placed beside the old ones, which were, indeed, inartistic enough, but at

¹³¹ PAUS. IV, 36, 6.

¹³² In Plutarch's day the plating had become worn off. Cf. PLUT. Nic. 3: Εστήκει δέ καλ τῶν διαθηκάτων αὐτῷ καθ'. ἡμᾶς τό τε Παλλαδίον ἐν Ακροπόλει, τὴν χρυσόσωσιν διποβεβλητέος.

¹³³ For Aristophanes in the *Birds* (brought out in 414), vs. 1128, alludes to it. Cf. also PAUS. I, 23, 8; LÖWY, *Inscriptions Griechischer Bildhauer*, No. 52; CIA. I, 406.

¹³⁴ PAUS. I, 22, 7; PLUT., *Alc.* 16; SATYROS ap. ATHEN. XII, p. 534, D.

¹³⁵ OVERBECK, *SQ.* 873.

¹³⁶ PAUS. I, 24, 4.

¹³⁷ PAUS. I, 28, 7; cf. also FRIEDRICH'S, *Praxiteles und die Niobegruppe*; STUD-NICZKA, *Vermuthungen zur Kunstgesch.*, p. 18, and *Zeitschr. f. Oestr. Gymn.* 1886, p. 686; SCHREIBER, *Berl. Philol. Wochenschr.* 1885, No. 19; ROBERT, *Archaeol. Märchen*.

the same time so hallowed with age that no new ones could ever take their place. In short, the Akropolis continued to be the centre of interest for art and architecture even during that long exhausting war, and to receive in ever increasing numbers these peculiar gifts of the Athenian people.

We are standing now upon the border of Athenian independence. With the humiliating reverses of the years 405–403 and the rule of the Thirty Tyrants, had departed, as far as might then be, the old glory of Athens. But before we cross that border, let us consider two buildings, of which the one can be dated only approximately, the other not at all.

(1) Upon the first terrace to the right, as one passes through the Propylaia, Pausanias saw the sanctuary of the Brauronian Artemis (see PL. XV.), and within it the chryselephantine (?) statue made by Praxiteles; there stood also within this shrine a work of Myron's—a *χαλκοῦς πτῖς* (a bronze boy), holding the basin containing the holy water.¹²⁸ We have not the faintest suggestion from antiquity as to when this temple was erected. We can form no notion in regard to its appearance; for not only are the ancient authors silent on this point, but, furthermore, not a single trace of such a temple could be found in the last excavations. Foundations, indeed, were found—two porticoes (see PL. XV.), the one along the southern, the other along the eastern boundary of the Brauronian terrace, the two meeting at right angles at the southeast corner. The temple itself—if there ever really was one, and there must necessarily have been one if Praxiteles' temple-statue was indeed of gold and ivory—must have been completely obliterated by the Venetians when they shifted the road leading to the Akropolis, so that it passed around the south side of the Propylaia.¹²⁹

(2) Many scholars have long clung with unyielding tenacity to the idea that there was a temple of Athena Ergane upon the next terrace to the east, between the Brauronian terrace and the Parthenon (see PL. XV.); but in the light of the last excavations this idea must be given up without reserve; for in the course of the last few years it has grown clearer and clearer that there never was

¹²⁸ PAUS. I, 23, 7.

¹²⁹ Cf. DÖRPFELD, *Mith. Athen*, XII, p. 117.

upon the Akropolis of Athens a specific temple of Athena as Ergane. Not only was not the faintest trace of such a temple discovered there, but we find instead another building which covers considerably more than half of the whole terrace, and is obviously the long-sought Chalkotheke (see PL. XV.); for its shape and arrangement forbid that it should have been a temple or anything but a great magazine. It is one of the largest edifices on the Akropolis—41 metres long, and including the porch, which is about 3.50 metres deep, 18.50 metres wide. It consists, furthermore, of only a single great hall, the south wall of which is the Akropolis wall itself. It is of somewhat later date than the Parthenon; for the rock-cut steps (KL) between the two buildings were made contemporaneously with the Parthenon, and are manifestly older than the Chalkotheke, inasmuch as they extend clear to the Akropolis wall. Much hard work for nothing would certainly have been spared, had not the stairs been constructed earlier than the magazine; for the triangle between the Chalkotheke and the end of the stairs was useless, and had to be filled up, thus covering that part of the stairs completely. The Parthenon is, therefore, older than the Chalkotheke, but not much older. The proof of this is found in the building-material in the foundations: the buildings of the v century b. c. are uniformly supported by substructions of Peiraieus stone, those of the iv and iii centuries by substructions of breccia. Inasmuch, therefore, as Peiraieus stone was still employed for the Chalkotheke, its erection will fall at the end of the v or the beginning of the iv century b. c.; this, furthermore, is in complete harmony with the official records, where the first mention of the Chalkotheke is made in the year 358 (or 354).¹⁴⁰

The next question is, what was kept in this immense magazine? The inventories of the stewards (*ταμίατ*) reveal the fact that its contents consisted of chairs, couches, cups, crowns, shields, greaves, etc., etc. One inscription¹⁴¹ mentions 1500 Lakonian shields; another¹⁴² bears record of 43,300 objects of one kind—the name is lost—and of a considerable number of various engines

¹⁴⁰ DÖRPFFELD, *Mitth. Athen*, XIV, p. 311.

¹⁴¹ CIA. II, 678.

¹⁴² CIA. II, 738.

of war besides; so there must have been a great array of weapons of every sort stowed away in the building. All this wealth belonged to the *ἱερὰ χρήματα τῆς Ἀθηνᾶς*¹⁴³ (the sacred treasures of Athena), and was under the supervision of the same stewards as the possessions of the goddess in the opisthodomos of the Parthenon. The inventories of both localities were sometimes even inscribed upon the same slab.¹⁴⁴ It therefore proves to be, as Michaelis long ago conjectured,¹⁴⁵ a “dependency” of the Parthenon, to receive things that could not find lodgment in the temple; and now we find that both magazines—opisthodomos and Chalkotheke—so closely connected in purpose, are also outwardly immediately united by means of the wide flight of stairs between them.

X.—THE AKROPOLIS IN HELLENISTIC TIMES.

From the close of the Peloponnesian War down to Herodes Attikos, there were but two men whose names have been rendered immortal by their connection with great building projects in and about Athens—Lykourgos and Philon; and their activity, though epoch-making in Athenian history, was confined exclusively to the lower city and to the suburbs, Peiraeus and Eleusis. Lykourgos, indeed, by his exceptional management as minister of finance, was able to find the means for dedicating new temple-furniture to Athena—golden Victories, new appliances of gold and silver for the processions, and so forth. So during the whole course of the IV century the Akropolis seems to have been the recipient of countless offerings bestowed in gratitude for honors received. Among these gifts the votive reliefs that were then becoming so popular were especially numerous; the offerings were for the most part small, for now the means of the people were small. But in addition to the reliefs, portraits in marble began to multiply. Beside the Perikles of Kresilas, soon stood those of the brave Iphikrates (371 b. c.), and other Athenians who had rendered their country especially great services. Konon, the hero of the sea, was the first Athenian since Harmodios and Aris-

¹⁴³ CIA. II, 61.

¹⁴⁴ DÖRPFFELD, *Mitth. Athen*, XIV. p. 311.

¹⁴⁵ *Parth.*, p. 306.

togeiton to whom during life the honor of having his portrait-statue erected upon the citadel was accorded by the State; and on the same pedestal with his stood also the statue of his heroic son, Timotheos.¹⁴⁶ And still the different kinds of decoration at this time placed upon the Akropolis have not been exhausted. After his victory at the Granikos (334), Alexander sent from the booty, as a gift to the goddess who had once suffered so severely at the hands of the Persians, 300 full suits of Persian mail, from which twenty-six shields were selected and arranged upon the architrave of the Parthenon.¹⁴⁷

It was not until this period that the Akropolis was again desecrated, this time by the wild excesses of Demetrios Phalereus, who went so far as to take up his abode in the Parthenon (304). And this disgrace was scarcely past when the inhuman Lachares seized the Akropolis and appropriated to himself everything of value that he could use. But he was soon expelled, and happily, in his precipitous flight from Athens, he found it necessary, so the story goes, to leave the most of his plunder behind; among this was even the golden garment of the Parthenos (*sic!*), which he is said to have stolen.

In this period we must think of the Akropolis, however much it may offend our aesthetic taste, as an almost incredible forest of statues. In a single year no less than 360 statues of Demetrios were erected, of which a goodly number were probably upon the citadel.¹⁴⁸ Nearly all that was added to Athens in these years and those to follow, the city owed to the favor of foreign benefactors. We head the list with such names as Ptolemy Philadelphos and King Attalos I: from the latter came as a votive offering the series of plastic groups in the southeast corner of the Akropolis, continuing the thought embodied in the metopes of the Parthenon; the Gigantomachia, the victory of the Athenians over the Amazons, the rout of the Persians by the Athenians at Marathon, and, as

¹⁴⁶ PAUS. I, 24, 3; the inscription is still preserved CIA. II: Κένων Τιμοθέου, Τιμόθεος Κένωνος; cf. MICHAELIS, *Mitth. Athen* I, p. 298.

¹⁴⁷ The inscription that explained the dedication ran: Ἀλέξανδρος Φιλίππου καὶ οἱ Ἑλλῆνες πλὴν Δακεδαιμονίων ἀπὸ τῶν βαρβάρων τῶν τὴν Ασταν κατοικούντων. Cf. ARR. *An.* I, 16, 7; PLUT. *Alex.* 16; MICHAELIS, *Parth.*, pp. 42-3.

¹⁴⁸ Later they all disappeared with the exception of a single one, and that one remained upon the Akropolis. Cf. DIOG. LAERT. V, 76-77.

the last link in the chain of Hellenic glory, Attalos' own victory over the Gauls in 229. Then came Eumenes II, Attalos II, Antiochos IV (Epiphanes) and Antigonos, whose names scarcely need to be mentioned as lovers and benefactors of Athens.

When all this is considered, it ceases to be a matter for any wonder that Pausanias mentions so few of all those portrait-statues, votive offerings, etc., or that Polemon, even in that early day, already found material for four and Heliodoros for fifteen books concerning the Akropolis with its votive offerings. And soon the open space about the temples no longer sufficed for the gifts that were brought, and the very steps of the temples were occupied by statues and reliefs; and there, beside representations of a religious or mythological character, stood even portrait-statues as well, where they have left their traces unto this day.

XI.—THE AKROPOLIS IN ROMAN TIMES.

From Sulla to Hadrian there was little done in the way of public building or improvement in Athens, but there was also, happily, little injury done to what was there before. While the treasures of art in Corinth were taken without mercy and carried off to Rome, and the buildings of the city ruthlessly destroyed, the conquering Roman showed, generally speaking, great respect for the intellectual greatness and artistic significance of Athens and spared the public monuments. Even Sulla, when in the First Mithradatic War he had stormed the city, flooded her streets with blood and threatened her with utter annihilation, even Sulla allowed himself to be dissuaded by Roman senators and friends of Rome from carrying out his dreadful threat. And though his lieutenant, Gaius Scribonius Curio, blockaded the Athenian tyrant, Aristion, within the ancient fortress—for a fortress it still was, and a powerful one,—and finally by starving the garrison out got possession of the citadel, still the buildings upon the sacred rock and in the city proper remained untouched, at least by Roman hands. Not so, however, the Peiraeus. But the worst that Sulla did after the surrender of Aristion was to appropriate to his own use some fifty pounds of gold and 600 pounds of silver that he found in the opisthodomos of the Parthenon.

Nothing definite can be said in regard to the changes that took place upon the Akropolis in the stormy times from Sulla to the founding of the empire. Mad Antonius came and succeeded in wedding Athena (with a wedding present of 1,000,000 drachmæ from the still madder Athenians), and in having himself installed and worshipped as a new Dionysos, with Cleopatra as a new goddess of the citadel. Still such folly did no harm, and the Akropolis continued down to the vast and systematic art-robberies of Nero exempt from any serious losses.

Not only did the Romans spare the treasures of that holy hill, but they also now began to vie with other philhellenic foreigners in the effort to augment that splendid inheritance of the past by further offerings of their own. And then not only Akropolis, but city proper as well, became fairly crowded with honorary statues to Roman governors, praetors, and other Romans of quality who had in any wise shewn favor to the city. Among such monuments the equestrian statue of Octavian's great engineer, Agrippa, might especially be mentioned. It was erected about 27 b. c., and stood upon a pedestal 16.75 metres high, which still exists almost intact at the entrance of the Propylaia, and directly in front of the anta of the Pinakothek¹⁴⁹ (see PL. xv).

In the first decades of the empire the demand for honorary statues became so great that the means at the city's disposal were far from sufficient to meet it. What was to be done? The Athenian people, to satisfy their Roman patrons, had recourse to the contemptible expedient of taking the statues of their fathers and of their gods and making them serve a new end.¹⁵⁰ A new inscription upon the old bases usually sufficed to transform a god or hero into an imperial Roman. But when this new christening failed to satisfy, then the heads of those perfect creations of a century long past must come off and make way for the portraits of the scions of proud Rome.

The most remarkable innovation upon the Akropolis, in imperial times, was the erection of a temple to Roma-Augustus. A

¹⁴⁹ The distance between pedestal and anta is not more than 1.50 metres.

¹⁵⁰ Cf. SIEBELIS, *ad. PAUS.* I, 2, 4.

Roma cult¹⁵¹ had existed in Athens for a century before the building of the temple, which probably took place about 15 B. c. It stood, as the excavations of 1887 disclosed, square in the axis of the Parthenon, and at a distance from it of only twenty-three metres to the east (see plan). Structural pieces of the building (among them the part of the architrave that bears the dedicatory inscription)¹⁵² lie close by and have long been known. These portions of the upper part, together with the recently discovered foundations, are sufficient to give us a pretty fair idea how the temple must have looked: it was, we observe, a circular building of white marble, surrounded by a colonnade of nine Ionic columns¹⁵³ and similar to the Philippeion at Olympia, but much smaller; the diameter of the stylobate of the Roma temple measures only seven metres, while that of the Philippeion measures a very little more than twice as much; the number of columns also is exactly twice the number encircling the temple of Roma-Augustus.

Thus we find the Roman Empire and the Roman Emperor received into the sacred circle of the deities of the Akropolis; and as their temple stood exactly in the angle between the great temple and the great altar of Athena¹⁵⁴ (see PL. xv), the sacrifices offered to the Polias must at the same time also have been shared by Rome and the founder of the empire. The Panathenaica also belonged no longer exclusively to Athena, but was combined with the festival of the emperor; and so in everything, from that day on, Roma-Augustus appear upon the Akropolis as recognized rival of Athena Polias.

¹⁵¹ As a reward for her assistance in the Third Macedonian War, the Roman Senate had restored to Athens Haliartos, Delos and Lemnos. Delos especially was a valuable possession to the Athenians, and in recognition of their obligation to Rome, the Roma cult was instituted. The first unquestionable mention of an *lepedēs Páymēs* occurs about 100 B. c. The temple to Roma might have been erected then, but Athens was in those years too poor, so that the entire fulfilment of their obligations was postponed until the latter part of the first century before our era. Cf. WACHSMUTH, *Stadt Athen*, I, p. 641, note 1.

¹⁵² The inscription (CIG, I, 478) reads: 'Ο δῆμος θεῷ Ράμη καὶ Σεβάστῃ Καίσαρι σπραγγοῦντος ἐπὶ τοῖς ὄγλασ ταυτέρων τοῦ Ζεύσων Μαραθονίου, λεπέως θεᾶς Ράμης καὶ Σεβάστου Σωτῆρος ἐπὶ' Ακροπόλει, ἐπὶ λεπέας Αθηνᾶς Πολιάδος Μεγιστῆς τῆς Ασκληπιάδον Αλαιέων θυγατρός, ἐπὶ δρυχοντος Αρήιου τοῦ [Δ]ωρεάνος Παναντεών.

¹⁵³ Cf. DÖRPFELD, *Mittb. Athen*, xiv, p. 264.

¹⁵⁴ See p. 493.

Peculiar in its kind, at least in Greece, as well as in its splendor, as was the great marble staircase leading from the so called gate of Beulé¹⁵⁵ up to the Propylaia, still there is not a single trustworthy allusion in ancient literature from which we can infer, even approximately, the date of its construction. It is a matter for no surprise, therefore, that every possible variety of dates has been assigned to it, from Perikles down to Augustus,¹⁵⁶ and even to Nerio,¹⁵⁷ Duke of Athens, in the xv century. The spade, I think, has solved this much disputed question also. At any rate, it might have been clear before to the careful observer that the stairs were not built until after the erection of the monument of Agrippa, for the latter does not face the stairway, as it certainly would have done had it been set up subsequently to the building thereof. But in clearing up the space about Beulé's gate, it appeared that the towers that flanked the gate must have been built contemporaneously with the staircase; for both the courses of the buttress-walls that inclose the flight of stairs, and also those of the substructure beneath the steps themselves, are carried over into the horizontal courses of the towers.¹⁵⁸ For the towers, moreover, we already had from inscriptions¹⁵⁹ an approximate date—the first half of the first century of our era. Towers and stairway, however, are evidently older than Beulé's gate, and the older

¹⁵⁵ Beulé, who conducted the excavations made by the French government, discovered the gate in 1852, and from him it received its name.

¹⁵⁶ WACHSMUTH, *Stadt Athen*, I, p. 674: "It was perhaps under Augustus, and at his expense, that the colossal staircase was built. And yet," he cautiously adds, "it may owe its origin to one of the later Athens-loving emperors." BOHN, *Propyläen*, thinks "the destruction of the Mnesiklean approach must have begun with Sulla, so that thus 100 years later a new flight of stairs became necessary." Accordingly he assigns the year 88 A. D. as a probable date for its construction.

¹⁵⁷ BURNOUF, *La Ville et l'Acropole d'Athènes*, p. 87: "La porte découverte par ce savant (Beulé) n'existe pas au temps de Nério" (xv century), and the reason he ascribes for this view is that the staircase lacks the character of ancient workmanship: the joinings are not exact, and there is a marked difference between this and the real Hellenic works upon the citadel.

¹⁵⁸ DÖRPFELD, *Mitth. Athen*, XIV, p. 120.

¹⁵⁹ (1) The dedicatory inscription (LEAKE, *Topogr. of Ath.* I, p. 306, note 1): Φλ. Σεπτίμιος Μαρκελλεῖνος Φλαμ[ην] καὶ ἀπὸ ἀγωνοθέτῶν, ἐκ τῶν ἰδίων, τοὺς πυλῶνας τὴν πόλει (i. e. 'Ακρούβλαι). But Leake is in error in assigning the inscription to the beginning of the II century; it is, like the next, a product of the first. (2) The "gate-keepers'" inscription with reference to the building of the stairway (Ross, *Demen von Attika*, p. 36): ἐφ' ὧν καὶ τὸ ἔργον τῆς ἀραβίσσεως ἐγένετο.

threshold between the towers lay more than three feet higher than Beulé's. We know that this must be so for three reasons: (1) For a distance of three feet above the present threshold (Beulé's) the ashlar of the towers is left rough and unfinished; it was not intended to be seen. (2) Inside the gate the towers extended further inward, as the still existing foundations abundantly attest; and (3) the last four or five steps at the bottom of the flight are steeper than the rest and of different construction. These last four or five steps, then, were changed to suit the new gate, which, for some reason or other, was made to swing upon a threshold set a little deeper than the older one had been. Beulé's gate is, therefore, a later and probably stronger substitute for a gate that had been there before.

The next question is: when was the innovation of the *Porte Beulé* made? This also can now be established with comparative precision; for, as has long been known, the gate is built, in part at least, out of the choragic monument of Nikias. Now, if this latter originally stood at the northeast arc of the Odeion of Regilla (fig. 1), as Dörpfeld has all but proved, it was demonstrably pulled down when the Odeion was building. The foundations of the monument as undoubtedly found their way into the substructure of the Odeion, as the architrave with the inscription, the triglyphs and metopes found their way into the upper part of the gate, where they have remained unto this day. The theatre built by Herodes in honor of his wife, Regilla, was erected, as we know, between 160¹⁶⁰ and 177 A. D.,¹⁶¹ and the guidemarks of the architect of the gateway upon the cornice-pieces, to indicate the order of their succession in building,¹⁶² as well as the architectural style of the whole gateway and the inscriptions built into it—all of them earlier than Herodes Attikos—point to the same date.¹⁶³

With the foregoing demonstration we have won for the history of the Akropolis two facts of no little importance: (1) That the staircase from the hexastyle of the Propylaia down to Beulé's gate was formed, as it were, in one mould with the towers beside the gate, in the first half of the I century A. D.; and (2) that even the builders of the great flight of stairs did not as yet

¹⁶⁰ The year of Regilla's death.

¹⁶¹ The year of Herodes' death.

¹⁶² DÖRPFELD, *Mith. Athen*, XIV, pp. 63, sq.

¹⁶³ *Ibid.*

dare to leave the citadel unfortified, but felt themselves forced to surround their splendid stairway with wall and towers. The erection of Beulé's gate later on was simply to strengthen the old gateway in the defensory wall already there. The conclusion is unavoidable: even down into the times of the Roman Empire (until the last half of the II century A. D.), the Akropolis remained a great fortress, with a strong defensory wall.¹⁶⁴

With the building of the stairway the appearance of the court in front of the Propylaia was completely changed. The old winding road had disappeared, and the method of approach was now two-fold: that which was exclusively for foot-passengers led through Beulé's gate, and thence up the stairs. The stairway itself is divided into two sections by a landing that extends clear across the middle of the flight. Below the landing the flyers extended uninterruptedly across the whole breadth of the Akropolis; ¹⁶⁵ above they were broken into two parallel flights by the second method of approach, the road for horses and sacrificial animals, which came in directly from the south, through the entrance used until a few years ago, past the Nike bastion, passing then between the parallel flights of steps, and so through the central door of the Propylaia to the Akropolis itself.

In the course of this period Nero had come and carried away many of the priceless treasures of the Akropolis of Athens for the adornment of the Rome that was then rising from the ashes of his great bonfire. He had reduced art-robery to a science and practised it extensively; and it was under his rule that Athens first suffered severe loss in works of art. But though Myron's cow and many other gems of the classical period wandered off to Rome to please the emperor, Athens still retained the most of her art treasures.

But Hadrian soon followed Nero, and with him came a revivification of art in Athens. "His coming," says Michaelis, "was a last bright ray of sunshine before the closing in of a dark and cheerless night." What Perikles had been to the Akropolis, Hadrian was to the city proper. But his monumental buildings and splendid works were confined to the lower city, and so we may pass him by.

¹⁶⁴ *Ibid.*

¹⁶⁵ BOHN, *Propylæen*, p. 35.

Hadrian's example inspired a younger contemporary, Herodes Attikos, a great scholar and the possessor of almost unlimited means, to turn his favor to the university city. But, like his predecessor, he spent millions upon millions upon the lower city, while the Akropolis fortunately received nothing but a few statues in his honor.

In the later imperial times the increase in the number of architectural ornaments in Athens was very insignificant. But with statues of bronze and marble, Athens was filled as never before. With the last of the Antonines architectural activity in Athens ceases entirely. From now on the whole glory of Athens was her past. We have now to trace the destruction and disappearance of the beauty and splendor lent to the Akropolis by the preceding centuries.

At the close of the IV century,¹⁰⁶ the Goths under Alaric pushed into Greece and overran the country; but, in spite of all the disasters that overtook Attika at their hands, the glories of the Akropolis—the Parthenon and the Parthenos, the Promachos, the Erechtheion, and the Propylaia—still shone in all their pristine splendor. But with the changed attitude of the emperors toward heathendom, Athens was doomed to decline and decay.

XII.—THE AKROPOLIS IN BYZANTINE TIMES.

The Emperor Constantine the Great (314–358) was the first to spread Christian influence over all the Hellenic world with imperial power, and yet neither he nor his two great successors, Constantios II (358–361) and Julian (361–381), laid a destroying hand upon the art or architecture of Athens. On the contrary, all three were ardent friends of the city, and some of Constantine's officers, especially Cerbonius, spent large sums of money to repair damage that had been done either by the Goths or by the earthquake of 348.

But when Theodosios II (408–450) came to the throne, the Athenian horizon grew suddenly darker. The ancient paintings in the Stoa Poikile, executed by Polygnotos, and representing the glorious deeds of ancestral days, were the first objects to attract the envy and cupidity of the young emperor. About 430 the

¹⁰⁶ Alaric passed Thermopylae in 395.

Parthenos is mentioned for the last time;¹⁶⁷ and she probably disappeared soon after that date from the sacred shrine that for nine centuries she had guarded. In the v century the Christian Church at Athens, which had hitherto been very weak, seemed suddenly to rise in power and influence; and this probably made it easier for Theodosios II to carry out his wishes. Throughout his reign Athens was continually plundered to enrich Constantinople. Up to this time it had been exceptional for an ancient temple to be transformed into a church, and so it remains almost a matter of certainty that in the v century Christianity had not yet made its way into the temples of the Akropolis. But in the year 435 the order came from Emperor Theodosios II: *Cuncta fana templa, delubra destrui conlocationeque venerande Christianæ religionis signi expiari.*¹⁶⁸ Although we have no definite record in regard to the matter until 630, still it is safe to presume that it was not long after the promulgation of the edict that the Parthenon, Erechtheion, Chalkotheke, etc., were converted into Christian churches. In accordance with the then prevailing custom of dedicating the temple of a heathen god to that saint who was most nearly the counterpart of the pagan deity, the Parthenon, the shrine of the virgin goddess of wisdom, was turned over first to St. Sophia, and not long afterward to the Panagia—the Virgin Mary. In like manner the temple of the knightly Theseus became the church of St. George.

In the conversion of Greek temples into churches, the first care of the Christians was for the orientation of their place of worship, that the altar might stand at the east end. In the case of the Parthenon, in order to accomplish the desired end, it was necessary to cut a door through the western cella-wall, for there had been none there before, and in that way the west end became the front, and the opisthodomos the narthex of the new church. The old entrance would, of course, be entirely closed up by the building of the apse.

¹⁶⁷ The fanatical Neoplatonist, Proklos, tells how a beautiful woman appeared to him in a dream and bade him prepare his house, for the Queen of Athens wished to come and dwell with him. This was the token that she must soon leave her own house. And, as a matter of fact, the Christians soon afterward removed the statue from the Parthenon.

¹⁶⁸ *Cod. Theod.* xvi, 10, xxv.

The thought of the barbarous treatment suffered by ancient temples at the hands of the early Christians rouses the indignation of all lovers of Hellenic antiquities; and yet our pain at the defacement that we behold may be moderated by the consideration that, if these peerless temples had not been converted into churches, they might have been ruthlessly destroyed as monuments of idolatry, sharing the fate of many another building—like the Asklepieion—of which the Church could make no use. The pediments also did not remain untouched. Even in the earlier Byzantine times the Athena at least had disappeared from both pediments of the Parthenon, and in her place were substituted niches, presumably with representations of saints. The columns were used as a sort of church record; there are still to be found scratched upon the columns of the Parthenon notices recording the days on which the dignitaries of the church had died. The last date is 1190. Other inscriptions contain short ejaculatory prayers, texts, *etc.*—such as are to be found on the walls of the catacombs of Rome.¹⁶⁹

A period of almost total darkness, unbroken by the light of a single important notice concerning the Akropolis, begins with Justinian (527–565) and continues down to the latter part of the middle ages; even from that time on it is possible to trace out the history of but few buildings. Justinian, out of jealousy for the new academy at Constantinople, dealt the University of Athens its death-blow; Athens, as the educational centre of the world, consequently became a thing of the past. But as an art centre it still remained his lawful prey. The splendid church of St. Sophia at the Golden Horn was building, and to give it grace and beauty, Athens was plundered without limit. We are told that not only sculptures, but columns and building-material of all sorts were transported to the capital for that purpose, and that the classic buildings of Athens furnished a convenient quarry for Justinian's architects.¹⁷⁰

The veil of the dark ages then closes in about the city of monuments. The light of letters and science is extinguished; the workshop of the arts and of industry, the home of the Muses and of wisdom is now heard of only as a story and no longer sought

¹⁶⁹ MICHAELIS, *Der Partn.*, p. 52.

¹⁷⁰ Cf. HERTZBERG, *Athen*, p. 217.

by admiring strangers from all parts of the world : it has now become simply a Byzantine fort in a weak, declining land.¹⁷¹

XIII.—THE FRANKS IN ATHENS.

In 1204, while the crusaders under Enrico Dandolo, the great Doge of Venice, and the famous Margrave Bonifacio II of Montferrat were engaged about the Bosporos, Sgouros of Nauplia arose and overran Middle Greece, captured Athens and burned it to the ground, but failed to get possession of the Akropolis. In the next year (1205) Bonifacio, now made King of Thessalonika, appeared in Athens with his victorious Burgundians and Lombards, and after no great struggle obtained possession of the Akropolis, plundered the churches, and then transformed them from orthodox into Roman Catholic churches.

Thus Attika and Bœotia came under the sway of the Burgundian Otto de la Roche-sur-Ongnon, who, as "Grand-Seignior of Athens" took up his residence upon the Akropolis. But of the changes made by the French dukes (1205–1311) or by the Catalans, who succeeded them (1311–1385), we know absolutely nothing. We are better informed, however, with regard to the operations of the Florentine dukes, to whom the Catalans in turn were forced to yield (1385). Under their dynasty Athens once more flourished. The first two Acciaiuoli took considerable pride in beautifying their city. They built upon the south wing of the Propylaia the mighty tower, which overlooked the whole Attic plain and the sea from Megara to Hydra and Cape Zoster.¹⁷²

¹⁷¹ The only possible items of interest recorded up to the time of its occupation by the Franks are: (1) the visit of Basileios II, who, in token of his gratitude to the Holy Virgin for his victories over the Bulgarians, held a magnificent triumph upon the Akropolis and dedicated to Saint Mary and her cathedral (the Parthenon) a large number of precious offerings, among them a silver dove (the symbol of the Holy Ghost) that ever fluttered above the altar. And (2) we have a report concerning the great church upon the Akropolis coming to us by way of distant Iceland. A pilgrim, Saewulf, had journeyed thence to Athens, and he makes mention of an ever-burning lamp that hung in the church of the Madonna.

¹⁷² BOHN, *Prop.*, p. 7, ascribes the building of the tower not to the Franks but to the Turks ; how a Turkish tower or a Turkish wall differs from a Frankish tower or a Frankish wall, unless it should happen to contain a contemporary inscription, I am unable to say, and so leave the question unanswered. HERTZBERG, *Athen*, pp. 102 and 226, ascribes it to the Burgundian dukes. This also is conceivable, but less probable ; it is the Italian dukes of whom such constructions are so characteristic.

The tower filled the whole south wing; the middle hall and the Pinakothekē were turned to other uses; the intercolumniations were built up with walls containing two rows of windows, a floor was put in making two stories for executive offices; above the entablature was a third story for the dwelling, and in this wise the Propylaia was converted into a *palazzo à l' Italienne* in which the Acciaiuoli lived. They furthermore united the Nikepyrgos with the pedestal of the Agrippa monument by an immense defensory wall 7-8 metres thick, which at the same time served to support a fine terrace in front of the palace of the Duke and a battery on top. To make the defense complete another wall of the same sort was built between the monument of Agrippa and the corner of the Pinakothekē.

These fortifications again necessitated a change in the approach. In the days of Perikles, and before, the road wound up over different terraces to the Propylaia; in the times of the Roman Empire and for centuries after, people had climbed to the Akropolis by the splendid marble stairs; now again the ascent was arranged in winding curves; it led through a gate beside the pedestal of Agrippa, then turned sharply about to the south, passed around south of the great tower, through the last gate and over the forgotten sanctuary of the Graces¹⁷³ and the great Pelasgic wall, now for the first time demolished, into the Akropolis proper.

The whole Akropolis now reverted once more to its original purpose—that of a citadel. But it must be made to correspond with the new methods of warfare, and was accordingly fitted out with barracks, *chemins de ronde*, *terre-pleins* and underground galleries, with reservoirs and magazines, with walls provided with battlements and embrasures, and with batteries at every point. Kimon's wall, however, had not been built with modern engines of attack in view, nor was it calculated ever to defy gunpowder and iron balls. Now, it was in these very times that artillery began to play a considerable rôle as a means of attacking strongholds, and the old walls, neglected as they had been for centuries, were at many points in no condition long to resist a heavy cannoneade of shot and shell. To meet this new need and make the wall bomb-proof, they doubled and even tripled its thickness.

¹⁷³ PAUS. I. 2.

These, after frequent repair, are the walls that strike the attention of the traveler to-day, especially on the south side of the Akropolis and in places on the north; they are built of small pieces of stone irregularly piled together with a vast amount of mortar and braced up with numerous buttresses. Here and there a piece of the modern wall has broken away revealing the massive, mortarless, ashlar wall of Kimon almost unscratched.

The Florentines built extensively upon and about the Akropolis, but they made sparing use of ancient materials. For the most part the material employed was taken from buildings of the Byzantine period.

Such was the condition of the Akropolis with the principal temples still practically uninjured, when in 1456 it passed into the hands of the Turks.

XIV.—THE AKROPOLIS UNDER THE TURKS.

The lawless condition of affairs that obtained at the court of the last of the Acciaiuoli in Athens made it a comparatively easy matter for Mohammed II, the conqueror of Constantinople, to annex Athens to his kingdom. In 1456 his general, Omar, took possession of the lower city and in June, 1458, Franco II surrendered the Akropolis also. The Sultan himself soon afterward visited his new possessions and was so charmed with the beauty and splendor of the remains of the ancient days, that he treated the city, considering that he was a Turk, with great kindness. Disdar-Aga, to be sure, took up his residence upon the Akropolis; the Propylaia became his headquarters, the Erechtheion his harem, while, strange to say, the Parthenon was left to the Christians as their chief place of worship in the city. His subordinates covered the Akropolis with their miserable dwelling-houses; they extended the casemates for their cannon; they built the great wall on the southwest, through the gate in which until recently—it is now removed entirely—all visitors to the Akropolis had to pass, and strengthened the circuit wall of the citadel still further.

After the Sultan's first visit to Athens, the Parthenon was still retained as a Christian church. But when, two years later (1460), Mohammed returned from subjugating the Peloponnesos and

found the Athenians plotting against his rule, he not only removed the leaders of the conspiracy but also, to punish the rebels still further, converted the church into a mosque (1460). Fortunately, however, this was accomplished without causing much injury to the building. The first thing for the pious Mussulman to do was to cover up the detested pictures of saints upon the walls with a good heavy coat of whitewash; and then on the south side of the old opisthodomos they reared up—a most wonderful appendage to the massive proportions of the Doric temple! —a tall and slender minaret, and to afford access to it they cut in exceedingly rough and barbarous Turkish fashion a door in the west wall of the cella. A view of the Akropolis drawn in 1670, gives us a fairly complete view of the condition of the buildings at that time.

And then again for two more centuries Athens disappears almost totally from history. The Moslems kept exclusive possession of the Akropolis during all that time, and, with their dislike for any object of art, of how many priceless works of sculpture must their religious fanaticism have robbed us during those two centuries. And yet down to 1650 the Akropolis had still suffered no great catastrophe. We know that the Turks either from religious conviction or from downright depravity had long been active in defacing the sculptured monuments that lay near at hand; we know further that educated vandals from enlightened Europe in their very zeal for antiquities continued the work begun by the Mussulmans, for they carried away the smaller pieces of sculpture and scattered them all over the world and defaced those that they could not carry away, by breaking off small pieces—as a head from a metope or frieze—wherewith to enrich their collections at home. And yet, notwithstanding all these depredations of Christian and of Turk, the great buildings of the Akropolis still stood almost intact until 1656. On one unfortunate night in that year¹⁷⁴ lightning struck a heap of powder which Isouf-Aga, then in command of the fort, had piled up in the east portico of the Propylaia preparatory to bombarding on the morrow a little Greek chapel

¹⁷⁴ The date is given by SPOON and WHEELER, *Voyage en Grèce, etc.*, II, p. 107; the explosion occurred twenty years before their account was written (1676), and thirty years before the explosion of the Parthenon (1687).

on the hillside opposite his palace. A frightful explosion followed, blowing Isouf-Aga into the air, but with him, less happily, a large part of the Propylaia. The whole architrave was shattered and with it the richly wrought ceiling also fell; two of the Ionic columns were entirely thrown down and the tops of all the rest. Even to-day as we gaze upon those broken and distorted columns we may read what fearful havoc that stroke of lightning worked.¹⁷⁵ The west portico, however, suffered less.

But now the mischief was only well begun. The really disastrous year was 1687. All the Peloponnesos had been swept by the flames of war; the victorious mercenaries under Francesco Morosini, afterward Doge of Venice, had wrested from the Turks one position after the other and were pressing on toward Athens. The Turks began to feel insecure even upon the Akropolis, and in order to intrench themselves more strongly in their citadel, they razed the little temple of Athena-Nike clear to the stylobate and built it block for block into new breastworks before the Propylaia, surmounted by six pieces of ordnance.

On the evening of the 21st of September of that year Morosini's fleet sailed into the Peiraeus; on the morning of the 22d the batteries on the Museion and Nymphaion and the mortars on the Areiopagos and to the east were all ready, and their dreadful work of destruction was begun. But impatient that their progress in bombarding a fastness so mighty was necessarily so slow, they resolved upon a measure that should wipe the Akropolis for ever from the face of the earth—they would undermine it and blow the whole hill, with all its temples, into the air. But the work proved too formidable and was soon abandoned.¹⁷⁶ Not long afterward a deserter came over from the Turkish side and with the hope of deterring the enemy from their bombardment told them that they were in danger of blowing the splendid Parthenon to pieces, for in that, he said, the Turks had their powder magazine. The falsehood (for it was only a day's supply of powder that the Turks had heaped up in the cella of the Parthenon) was fatal; instead of ceasing their fire, the mortars were all turned upon one point—the Parthenon itself—but for a long

¹⁷⁵ BOHN, *Prop.*, p. 8.

¹⁷⁶ MICHAELIS, *Der Parthenon*, pp. 66, sq.

time, as if the guns refused to do their duty against such a mark, the firing was without effect.¹⁷⁷ Finally, however, at seven o'clock in the evening of the 26th of September, a German lieutenant in Morosini's army tried his hand at one of the eastern mortars and the unblessed bomb fell through the roof of the Parthenon, directly into the heap of powder, and the masterpiece of Iktinos and Kallikrates, almost whole until that moment, was torn asunder. And this was not all, but the explosion caused a conflagration that for two days and nights raged among the houses of the Turks, bringing destruction and injury to the other temples there.¹⁷⁸ Such a price did Venice pay for six months' possession of the Akropolis of Athens.¹⁷⁹ How fortunate that less than three years previous Jean Jacques Carrey had come that way and made his invaluable drawings of the Parthenon sculptures!

After the capitulation of the garrison, the captors proceeded to select choice pieces of the marble sculptures to carry home as mementos of their glorious achievement. Morosini, recalling the fine bronze horses brought home by some predecessor to adorn St. Mark's, was seized with a desire to possess himself of those wonderful horses of Athena and Poseidon in the west pediment of the Parthenon and to take them as a trophy home to Venice. But through the deplorable carelessness of the workmen (they were sailors), the figures fell sixty feet down upon the rock and not merely broke in pieces, but "they went up in dust."¹⁸⁰ Losing these, the conqueror took instead the three huge lions that now stand guarding the entrance to the arsenal of the Queen of the Adriatic.

As soon as the Venetians were gone, the Turks at once resumed possession of the Akropolis. The Italians had set them an example of destruction on a gigantic scale, and if they had showed any mercy before, they now showed none; the colossal heap of ruins made by the explosion of the Parthenon, together with every other piece of white marble not too large to be easily moved, and if the fragment chanced to contain a relief or an in-

¹⁷⁷ CURTIUS, *Die Akropolis v. Athen*, p. 81.

¹⁷⁸ BOHN, *Prop.*, p. 8.

¹⁷⁹ CURTIUS, *Die Akropolis v. Athen*, p. 81.

¹⁸⁰ "La poca accortezza di alcuni gli fe cadere, e si ruppero non solo ma si disfecero in polvere;" from a letter written by a Venetian officer, who arrived in the Peiraieus on the 18th of December, 1687.

scription, so much the better—all this found its way into their limekilns in order to furnish mortar for repairing their miserable huts and the walls of their fort. And yet these same huts, again filling up the whole Akropolis, covered and saved many a precious fragment or important foundation that might otherwise have perished.

The minaret in the Parthenon still stood; the mosque was rebuilt and the work of destruction went steadily on. The havoc wrought by ignorance, wantonness and religious fanaticism on the part of the Turks among the relics of antiquity was again increased by the covetousness of the educated foreigners who now began once more in greater numbers to visit Athens. Their desire for choice bits of sculpture inspired the Turks with a new motive to more extensive devastations—a chance to make money. For more than a century the plundering and destruction continued, and it is a wonder that anything was saved. Only the boundless wealth of the Akropolis in treasures of marble can possibly account for the fact that all did not perish. As early as 1749, when Dalton made his drawings of the Akropolis, not half of the figures belonging to the pediments of the Parthenon were in their place; some he found in fragments, others thrown down but well preserved, while many had already disappeared entirely. Under these circumstances it was scarcely an act of plunder or destruction that Lord Elgin committed, when in the first years of our century he removed the greater part of the Parthenon sculptures from Athens and in that way saved them for us from the destructive mania of the Turk, the vandalism of later travelers and the dangers of war. It was also far from being a theft, as it is often called even now. For after having worked in 1800 and 1801 against the greatest conceivable difficulties in making casts and drawings of the remains of sculpture and architecture upon the Akropolis, he then received from the Sublime Porte a firman, in accordance with which he was granted permission “to go in and out of the Akropolis at will, to excavate, to build scaffolding, mould and measure as he pleased; and if he wished to take away a few blocks of stone with inscriptions or figures upon them, nothing should stand in the way of his doing so.” With this grant he collected figures from the pediments, metopes, blocks

of frieze, and sculptures of every sort, sent them off to England and so preserved them from the certain destruction with which they were threatened. For that he has our thanks. But in one respect he, or rather his workmen (for he himself was seldom present in Athens while the work was going on), will always deserve severest condemnation, in that the buildings were often barbarously and inexcusably mutilated, in taking down the desired pieces of sculpture. Portions of the roof and cornice of the Parthenon were torn off, let fall and broken to atoms in order to remove the metopes; one of the Caryatids was torn out from the porch of the Erechtheion with such brutal violence, that both the architrave and the lacunaria of the ceiling fell with a crash and were ruined.¹⁸¹

The rescue was accomplished none too soon; for in the year 1821 the War for Grecian Independence broke out, and Attika was the scene of many a bitter struggle. In the second year of the war the great Odysseus built above the Klepsydra a mighty bastion—now removed—the last military construction built upon the Akropolis. Still, for several years more Athens was spared. At length, bringing destruction with it, came that last long siege of the citadel of Athens, from July, 1826, to June, 1827. The Turkish cannon proved no less destructive than the Venetian. Bombs and shot of every description shattered the sculptures that were still in place and shivered the standing pillars. Especially unfortunate were the bombs that struck the two northwest columns of the Erechtheion and precipitated a part of the elaborate ceiling of the porch.

From the 5th of June, 1827, until the spring of 1833, while the seat of the new national government was at Nauplia, the Turks remained stolidly in possession of the Akropolis. But when the seat of government was transferred from Nauplia to Athens in 1833, they had to make way for the Bavarian garrison that accompanied King Otho from Munich. This event marked the end of the destruction of antiquities in Athens, and with it the Akropolis for ever ceases to be a citadel.

¹⁸¹ For the details see MICHAELIS, *Der Parthenon*, pp. 74-87.

XV.—FROM THE GREEK REVOLUTION TO THE PRESENT.

We have now seen how the Akropolis grew, from a jagged rock to an inexpugnable fortress, and from a fortress to a shrine of surpassing splendor; then we have seen how it fell into ruin and decay. Now comes the time when the monuments of antiquity are rescued from the débris, from their covering of Byzantine, Frankish and Turkish buildings and walls, and when ancient Athens is more clearly restored to our admiring eyes. While excavations on a small scale were occasionally instituted even in the earlier years of this century, especially by that zealous collector of antiquities, the French Vice-Consul, Fauvel, still the epoch of important systematic excavations dates from the time when Athens was made the capital of the new-made kingdom and Peiraeus again fitted out as its port.¹⁸²

The first real work of excavating began at once in May, 1833; with a modest sum raised by private subscription the first small clearing was made beside the Parthenon. In the next year the work was resumed, this time at the public expense, under the direction of the architect Klenze, of Munich, but without any particular results.¹⁸³ We owe Klenze our thanks principally for what he failed to do; his most fondly cherished plan was to erect upon the Akropolis the royal palace of King Otho, and to the king himself belongs the credit of defeating the scheme.

It was not until January, 1835, that the government itself took up the work on a large scale and according to a systematic plan, and prosecuted it with wonderful success after Ludwig Ross, as Conservator-in-chief of Antiquities in Athens, in conjunction with the architects Schaubert and Hansen, was put in charge of the work of exploration and restoration. They began with the removal of the works of fortification and other modern buildings, continuing also the excavations about the Parthenon, which was then buried up to the second step in the débris of centuries.¹⁸²

Besides a large number of bases of votive offerings, inscriptions, and other smaller monuments, they discovered in that year (1835–6) considerable remains of the Parthenon sculptures—from pediments, frieze and metopes; the west front of the Propylaia was

¹⁸² MICHAELIS, *Der Parthenon*, pp. 88 sq.; WACHSMUTH, *Stadt Athen*, I, pp. 28 sq.

cleared up, and above all nearly every piece of the Nike temple was found and the temple reconstructed part for part, except the roof, upon its old foundations.

Scarcely had this valuable service been rendered when Ross was superseded by the untrustworthy Pittakis. Under his direction the work about the Propylaia was finished (1837), and the foundations of the Erechtheion laid bare (1838-40). In 1842 the old mosque in the Parthenon, restored in 1688 after the explosion, collapsed and was all removed except the lower part of the minaret, which was taken down in 1889.

The Bavarian administration thereupon gave up further prosecution of the task. But the world could not suffer it to rest in a state so far from completion. The credit of having continued the excavations belongs to the French government. In 1852 under the supervision of M. Beulé, at that time a member of the French School at Athens, the Roman stairway and the gate that bears his name were freed from the immense Turkish and Venetian bastions built upon them.

After the French had ceased operations there came a Prussian expedition led by Adolf Bötticher; they directed their energies to pulling down the Byzantine apse in the pronaos of the Parthenon and to removing the rubbish that Pittakis had left in and about the Erechtheion. The results of his investigations are given in detail by Bötticher himself in his "*Akropolis von Athen*."

Only two more agencies have since contributed to the completion of the work upon the Akropolis. The next after the French and Prussians was the Ἑταιρία Ἀρχαιολογική, the "Archæological Society of Greece;" this society, at first generously supplied with funds by Dr. Schliemann, carried on the excavations until we could get a fairly complete notion of the post-Periklean Akropolis. In 1876 even the old tower upon the south wing of the Propylaia was taken down in the hope of new discoveries.

It was then thought that every corner, every pile of earth and rubbish had been examined and that the Akropolis contained but little that was hidden from sight. And yet the explorations of the Greek government and the Archæological Society, carried on from 1885 to 1889, have been richer in results than almost any other excavations that might be named, and they are at the

same time more complete, for we know now to a certainty that the spade can reveal nothing new within the walls of the Akropolis. Excepting where the ancient buildings stand, the whole surface of the Akropolis down to the natural rock has been moved and minutely examined. These new excavations have not only brought to light a vast number of statues, inscriptions, bronzes, terracottas, remains of great buildings, *etc.*, and have given us much new information concerning the age of Perikles, but they have also thrown upon the condition of the pre-Persian Akropolis, with its palace and shrines, and even upon its natural form, such a flood of light as we had never hoped to see.

We have looked upon a picture of perfect beauty and then upon another of that beauty's destruction and decay; and at the end, as at the beginning, Athens is and always will be the Mecca toward which every friend of ancient art will turn. And if in the dazzling light of that southern sun it brings a feeling of pain and sadness to look upon the desolation wrought by the hand of man upon those divine creations of man's hand, and if it is impossible to imagine from the few, shattered fragments before us what the whole must have been, let us wait till nightfall. Who that has ever stepped out from the Propylaia upon the inner Akropolis with the full moon hanging in the sky can forget the impression made upon his soul! The vast proportions then are realized; the world of ruins round about is animated with life; the awakened fancy fills up all gaps and covers over every defacement; the sanctuary of Athena and Erechtheus small and serene in the moonlight shows all its ancient elegance; and above it rises majestically the imposing Parthenon with its forest of pillars. The gods return from the Hyperboreans and take their places again in the pediments. We forget the Christians and the Turks, the Venetians and Lord Elgin, and with beating hearts we bow in silent admiration before the consummate art which created that harmonious whole.¹⁸⁵

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¹⁸⁵ Cf. Michaelis, *Der Parthenon*, p. 91.

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ARCHÆOLOGICAL NEWS.

SUMMARY OF RECENT DISCOVERIES AND INVESTIGATIONS.

	PAGE.		PAGE.		PAGE.
ABYSSINIA,	586	CHINA,	600	SYRIA,	610
AFRICA (CENTRAL),	586	EGYPT,	557	TIBET,	598
ALGERIA,	588	HINDUSTAN,	589	TUNISIA,	588
ARABIA,	602	ITALY,	620	WESTERN ASIA,	604
ASSYRIA,	609	MONGOLIA,	601		
BABYLONIA,	606	PALESTINE,	614		

AFRICA.

EGYPT.

PROGRESS OF EGYPTOLOGY.—HIEROGLYPHIC STUDIES, &c., 1892-3.—The professorship and library of Egyptology established at University College, London, by the late Miss Amelia B. Edwards, is the first provision of the kind made in Great Britain. At first the books alone were available for reference, but the new buildings finished this summer have set free ample space for all the collections, books, photographs and antiquities. Prof. Flinders Petrie's lectures have been full of originality and interest, his practical experience having led him into many by-paths which had not attracted the attention of other Egyptologists. At the same college, Prof. R. Stuart Poole has devoted a part of his time to giving instruction in the Egyptian language and hieroglyphics, while in afternoon meetings, at the rooms of the Society of Biblical Archaeology, Mr. Le Page Renouf has laid before large audiences the results of his minute investigations in Egyptian philology.

History.—Mr. Petrie's *Medium*, containing plans of the pyramid, the pyramid-temple and several of the private tombs of the necropolis of Médüm, presents evidence of a highly developed civilization from the time of Seneferu, the earliest king of the IV dynasty. Most of the architectural forms of the later dynasties appear already in this dynasty. The Archæological Survey of the Egyptian Exploration Fund has been especially busy amongst the monuments of the V and VI dynasties, in Middle Egypt, from Sheikh Sa'id to Dér el Gebrawi. The gap between the VI and XI dynasty is almost as obscure as ever. For the XII dynasty we now have the full publication of the first

fourteen tombs of Beni Hasan in the first memoir of the Archaeological Survey. For the Hyksos period, it has long been supposed that their power hardly extended to Upper Egypt, but two small tombs containing the name of one of the two Apepis would indicate that their power extended as far south as Gebelén, above Thebes. Certain chronology commences with the xviiith dynasty. The calendar on the verso of the Ebers Medical Papyrus records a coincidence between the sothic and the solar year, which astronomy determines as having taken place in the years b. c. 90-87, 1550-1547, and 3010-3007. The coincidence occurred in the ninth year of a certain king, whose name long baffled decipherers; but Prof. Erman and others have shown the name to be a cursive rendering of the prenomen of Amenhotep I, second king of the xviiith dynasty. Our knowledge of the approximate date of this dynasty now enables us to fix more exactly the ninth year of Amenhotep's reign as falling within the period 1550 to 1547. The Tel el-Amarna tablets, recording the correspondence of Amenhotep III and Amenhotep IV with their officers in Syria, have now been published in fac-simile. The similar tablet dug up in the ruins of Lachish by Mr. Bliss, for the Palestine Exploration Fund, is one of the most remarkable coincidences of discovery on record. The exhibition of Prof. Petrie's discoveries at Tel el-Amarna, held at Oxford mansion last year, revealed new styles and methods of workmanship. In some cases the walls were inlaid with hieroglyphs of alabaster, granite and absidian, and the columns were encased in moulded pottery. Floor as well as wall paintings were found. The duration of the reign of Amenhotep IV has hitherto been uncertain. But the series of inscribed wine jars from Tel el-Amarna seem to prove that the last year of his reign was the seventeenth.

Geography.—Maps of Upper and Lower Egypt, with most of the chief monumental sites, are published at the end of the Archaeological Report of the Egypt Exploration Fund. The Vicomte J. de Rougé has published a *Géographie des noms de la Basse Égypte*. Major Brown discusses the Fayum in his *Fayūm and Lake Mæris*, and Brugsch Pasha the same subject in the *Zeitschr. f. Aegyptische Sprache*. An important Arabic treatise on the cities and villages of Egypt, of the date 1390-1407 A. D., has been discovered and published by Dr. Vollers under the title, *Description de l'Égypte par Ibn Doumek*.

Arts, Crafts, &c.—Prof. Petrie's lectures in London and the publications of the Egyptian Exploration Fund throw new light upon the history of the arts and crafts in Egypt. In *Archæologia*, vol. liii, pp. 83-94, Mr. Budge publishes a number of Egyptian bronze weapons, several of which are dated. Mr. Griffith in *Proc. Soc. Bibl. Arch.*, vols.

xiv and xiv, treats of weights and measures. Mr. Baillet in *Miss. Arch. Franc. au Caire, t. ix*, publishes a mathematical papyrus of the VII or VIII century, A. D. Though written in Greek, it retains a broad substratum of ancient Egyptian methods. Herr Ludwig Borchardt and Dr. Seltre elaborated in the *Zeitschr. f. Aegypt. Sprache* a theory that the pyramids were, to a great extent, restored in the xxvi dynasty.

Religion.—Mr. Renouf has interested a wide circle of readers by his translation of the Book of the Dead in the *Proc. Soc. Bibl. Arch.* Prof. Wiedeman has made a useful index of the names of deities and demons occurring in the third division of Lepsius' *Denkmäler*.

Philology.—Prof. Hess of Freibourg has published in photographic fac-simile, with an excellent glossary, a partly gnostic papyrus in the British Museum. The Egyptian alphabet has been restudied by Georg Steindorff in the *Zeitschr. d. deutschen Morgenl. Gesellsch.* Prof. Erman has shown that there are no homophones in the alphabet of the Early Empire.

Foreign Relations of Egypt.—An important work on this subject is W. M. Müller's *Europa und Asien in den Aegyptischen Inschriften*. It is likely to be the standard work of reference on this subject for a long time. Prof. Hommel has endeavored to show in *Der Babylonische Ursprung der Aegyptischer Kultur* a connection between the earliest civilizations of the Euphrates and the Nile. Prof. Erman in the *Zeitschr. d. Deutschen Morgenl. Gesellschaft* has examined the ancient hieroglyphic roots that have been connected with Semitic words. His results are chiefly negative, though he believes in an early and far-off relationship.

Miscellaneous.—M. de Morgan, the new Director-General of the Antiquities of Egypt, has practically completed the arrangements of the monuments in the Ghizeh Museum, and forty-six new rooms have been opened to the public. A laboratory and two exhibition rooms have been set apart for Egyptian anthropology. A museum of Greco- and Romano-Egyptian and Coptic antiquities has been established at Alexandria. The director is Dr. J. Botti.

M. de Morgan has undertaken a survey of the monuments of Egypt from the First Cataract northward. The latest memoirs of the *Mission Archéologique Française au Caire* include many Coptic and Arabic documents and monuments, and the beginning of a complete edition of the texts and scenes of the temple of Edfu.

Herr Brugsch-Bey, curator of the Ghizeh Museum, announces interesting discoveries from the excavations at Memphis, Sakkarah and Mér. At Memphis were discovered a red sacred boat ten feet long, a

statue of Rameses III, with a divinity, two colossal statues of the god Ptah, and others of less importance. From Sakkārah came twelve-colossal stelæ, some fine bronzes, and a statue of a scribe, one of the finest of such statues, resembling the seated scribe in the Louvre. At Mēr were found a number of wooden statuettes and several boats of the xith dynasty. Among the statuettes is one of bronze, the first known to belong to so early a period. Some mummies of the Graeco-Roman period were found with heads of plaster, painted in most life-like way.

The cemetery of Heliopolis has been extensively worked by M. Philippe of Cairo, who has discovered in it some sarcophagi of the Saite period. Messrs. J. J. Taylor and Somers Clarke spent several months in the neighborhood of El Kab. At Kôm el-Ahmar they cleared two tombs of the vith dynasty and copied the inscriptions. The details of the little temple of Amenhotep III in the desert were photographed to scale and drawings made by the temples, the tombs and the city wall.

M. Golénischeff has catalogued the Egyptian antiquities of the Hermitage Museum. Some of the papyri are of the highest importance. The guide (*Führer*) to the exhibition of the Rainer papyri is a most valuable work, especially for the Byzantine and early Arabic periods. Some small fragments of papyri in the collection of Lord Amherst have done good service in indicating the nature of the lost portions of some large rolls in the Berlin Museum. They have been utilized by Mr. Griffiths in "Fragments of Old Egyptian Stories," published by the Society of Biblical Archaeology. Prof. Krall has published in the Memoirs of the Royal Academy of Sciences at Vienna a long Etruscan text on the linen wrappings brought from Egypt and deposited in the Museum of Agram. The ninth International Congress of Orientalists, held in London in Sept., 1892, was attended by many distinguished Orientalists. Much sensation was caused by the exhibition of a fragment of a papyrus of the Septuagint from Egypt, supposed to be of the 2d century A. D., but since discovered to be later. Prof. Georg Ebers has been compelled by weak health to give up the chair of Egyptology in the University of Leipzig. His successor is to be Dr. G. Sterndorff, at present assistant director of the Egyptian Museum at Berlin.—G. M. GRIFFITH in the *Archaeol. Report, 1892-1893, of the Egypt Exploration Fund.*

THE ARCHAEOLOGICAL SURVEY OF EGYPT.—MR. NEWBERRY'S WORK, 1892-93.—The main basis of operations was in the tombs of Sheikh Sa'íd, which are situated on the east bank of the Nile, a few miles to the north of Tel el-Amarna. The survey also explored the country from El Bersheh to 'Arab el-Hetam, surveyed two important groups of tombs

near Deir el-Gabrawi, and completed the water-color drawings of the most interesting scenes at Beni Hasan and El Bersheh.

The tombs of Sheikh Sa'id are in a series of four tiers, one above the other. The ancient tombs number over eighty, but only seven are inscribed, and only these are interesting. Architecturally, they are of three types:

1. A small square chamber cut out of the hillside; doorway small, without architectural features.

2. A small chamber cut out of the hillside; doorway small, with rounded lintels and sloping façade.

3. Two or more chambers with false doors, architectural façade representing sloping falls surmounted by a heavy beam, and rounded lintel to doorway.

The inscriptions show that the hill here was used as the necropolis of the princes of the Hermopolite nome and by superintendents of "the new towns." Several contain cartouches of monarchs of the early kingdom, and bear inscriptions which show that they were restored by descendants of the owners in the XI or XII dynasties. If we examine the tombs from the north, the first of any note is No. 14. It belonged to the superintendent Teta-anch, and contains some bas-reliefs and inscriptions. No. 17 contains two large false doors on either side of the entrance. The inscriptions show that the owner was a "royal chancellor" and a "familiar friend of the king." His wife was a priestess of Hathor. No. 18 was the tomb of Nan, the "great chief of the Hermopolite nome." No. 19 belonged to Meru, the "Superintendent of the South," and "Governor of the Citadel of Pepi." No. 21 was that of Hepa, as indicated by inscriptions painted in hieroglyphics, and No. 23 that of a prince Urarna. The finest tomb was also executed for Urarna. It has beautiful and delicate bas-reliefs, which give a varied and interesting picture of life in Egypt during the Ancient Kingdom. The scenes representing agricultural pursuits are especially noteworthy, and the domesticated animals are depicted with great skill.

Between Sheikh Sa'id and Dér el-Gebrawi are monuments of various periods, which have been carefully noted. To the northeast of Tel el-Amarna is a series of tombs ornamented with paintings, sculptures and inscriptions relating to various officers of the court of Khuenaten and his immediate successors. To the east are many tombs of a similar character, which ought to throw a flood of light upon one of the most remarkable periods of Egyptian history. In a ravine far up the great roads dividing the Gebel el-Tit from the Gebel Abu Hasár is a group of four large tombs, apparently royal, for

among them is the last resting-place of Khuenaten, the founder of the city of Tel el-Amarna and of the heretic religion. A sketch-plan of this tomb is given. In the hills behind the great plain of Tel el-Amarna are numerous limestone and alabaster quarries. Among these are the alabaster quarry of Hat Nub, a limestone quarry with the cartouche of Queen Ti, an alabaster quarry inscribed with the names of Amenemhat II and Usertesen III. Two, those of Aba and of Zan, are of special interest. The walls of these two tombs are covered with interesting scenes and inscriptions; and, though considerably earlier in date than those of Beni Hasan, are not unlike them in the subjects of the paintings. Arts and trades, tax-gathering and the bastinado, sowing and harvesting, fishing and hunting, dancing and singing are illustrated, and have explanatory notes in hieroglyphics. The names of the members of the families and their household servants are recorded. The results of the present season's work will probably be issued under the name of *Sheikh Sa'id and the Gebel el Gebrawi*.—PERCY E. NEWBERRY in the *Archaeological Report, 1892-1893, of the Egypt Exploration Fund*.

EXHIBITION OF THE EGYPT EXPLORATION FUND IN LONDON.—The private exhibition of the Egypt Exploration Fund, held by kind permission of the Marquis of Bute at 83 Eccleston square, from July 15 to 26, was highly interesting to students of ancient Egyptian art and civilization. Fragments of wallpaintings from tombs of the xi or xii dynasty, at El Bersheh, were exhibited side by side with water-color sketches made but a few months ago by Mr. Percy Buckman, and faithful copies of scenes and signs from the tombs of Beni Hassan and Dér el Gebrawi by Mr. W. Blackden and Mr. Howard Carter. The fine work in drawing and colors, the enamel-like firmness and thickness of the paint, on a small fragment of limestone with a drawing of three geese upon it was particularly noticeable among the ancient work. But a great attraction to Egyptologists was to be found in copies of single hieroglyphs of the xii and earlier dynasties, such as were still drawn and colored in conformity with the nature of the objects which they were originally intended to represent. Nearly two hundred of these hieroglyphs have now been carefully fac-similed by artists of the Egypt Exploration Fund during the last two seasons. We have only to look at the condition of one fine fragment from the tomb of Tahutihotep at El Bersheh, to recognize afresh how imperative it is that faithful pictorial records should forthwith be made of the exposed monuments of Ancient Egypt. M. de Morgan is pushing on this work in the name of the *Service des Antiquités* with his well-known administrative ability; but the field is wide and the

skilled laborers in it are few, while even the strong hand of the Director of Ghizeh cannot altogether stay the destruction wrought there by the hand of nature and by the natural man. The tomb of Tahutihotep has long been wrecked beyond all possibility of reconstruction *in situ*—probably by earthquake; and, on that account, Mr. W. Fraser, as an officer of the Egypt Exploration Fund, was permitted by M. Grébaut to save the best of the fallen painted blocks from further damage and defacement by the Arabs.—*Acad.*, July 29.

In the *Times* of Oct. 7, 1890, Mr. Villiers Stuart offered £50 to the Egypt Exploration Fund, on condition that forty-nine other persons should each give a like sum towards the work of securing exact copies of scenes and inscriptions from the ancient Egyptian monuments. At present we understand that only three persons (two English and one American) have come forward in response to his challenge. But this exhibition will certainly have aroused both fresh and new interests for an undertaking which appeals to all students of science, of art, and of history.—*Acad.*, July 29.

THE GOD OF THE ZODIACAL LIGHT.—In consequence of a most important discovery by Hermann Gruson, a specialist on light, Dr. Brugsch has entered into a detailed study of the zodiacal light as known to the ancient Egyptians. It is a phenomenon very prominent in Egypt—before and after sunset—and the Egyptians worshipped it in the same way as they did the sun. Its natural shape is pyramidal and it lasts about three-quarters of an hour. Its symbol among the Egyptians is found to be a triangle, and the god that represents it is figured as a man in royal costume, whose head is crowned by an elongated triangle. The name of the god is *Sopd* or *Sopdon*, and he is connected with "Horus the triangular." The sense of "zodiacal light" now to be given to the sign of the triangle explains many passages which have been differently translated. The zodiacal light is supposed to have come at the very beginning of the creation of the world, before the sun, and is connected with the figure of the creating god. The zodiacal light is spoken of as rising from the ocean. On a number of monuments this light is figured as a pyramid between two mountains, in a way corresponding to the circle of the sun.

The centre of the worship of the zodiacal light was the city of Gosem or Goshen, in the province of Arabia in the Delta. Here a splendid sanctuary was dedicated to the god Sopdon, who gave to the city its sacred name Pa-Sopdon. *Oif*. Naville's volume on Goshen.—*Proc. Soc. Bibl. Arch.* xv, 5–6.

INVESTIGATIONS BY THE FRENCH SCHOOL.—Prof. Sayce writes: M. de Morgan, M. Bouriant and the members of the French Archaeological

School have now left Sehél and are anchored at Elephantiné. They have copied and numbered all the inscriptions at Sehél, as well as on the mainland between Assuan and Shellal; and the whole district has been surveyed and mapped by M. de Morgan. They will soon be able to descend the river to Kom Ombos and superintend the excavations there. Meanwhile a very perfect statue of a seated scribe has been found at Saqqârah and removed to the Gizeh Museum. It is one of the finest examples of the art of the Old Empire which has as yet been discovered. It was disinterred from one of the tombs which the Museum has been excavating. Other excavations are being carried on in the same locality by Lord Blytheswood. M. Naville, who was at Assuan last week, has now begun his work at Dér el-Bâhari, and M. de Morgan has lent him a railway for the removal of the rubbish. (For the excavations at Kom Ombo see special heading.)—*Athenæum*, Feb. 25.

At a May meeting of the *Académie des Inscriptions*, Prof. Maspero gave a report of the archaeological work done in Egypt during the past winter under the direction of M. de Morgan. This chiefly consists in beginning a comprehensive catalogue of all the monuments of the country, which includes a record of inscriptions, paintings, &c. The district specially surveyed during the last five months is that between Philae and Kom-Ombo.—*Acad.*, June 3.

EGYPTIAN PECTORALS.—In an article on pectorals in the *Proc. of the Soc. of Bibl. archaeology* (Vol. xv. 8, 1893), Mr. E. Towry Whyte says, “I do not propose to include the large number of scarabs, commonly called the heart scarab, which are generally found in place of the pectoral; they are found both as painted ornaments on the mummy case or cartonage wrapping, and as carved or moulded objects made in various materials . . . but I shall restrict myself to the pectoral plate or ornament, an object much less frequently found.” They have received but little attention. They are flat plates laid on the breast of the mummy held in position by cords fastened to loops or holes in their top and sometimes in their bottom as well; and they were hung round the neck of the mummy or tied on to the collar.

“They are usually in the form of a naos or shrine, but are also found of an oval shape; they were called in Egyptian *utî*, which name was also given to the symbolic eye of the sun.” The material employed was diverse—gold, silver, bronze, lead, stone, porcelain, wood and composition. “The gold ones are generally inlaid with either colored stones, glass or composition. No enamel in the proper sense of the term has yet been discovered. The pattern on the gold is formed by walls of gold being soldered on the ground in the same

manner as *cloisonné* enamel, and the stones or glass cut in shape and fixed in with cement. Where composition is employed in place of stone or glass, it appears to be a very hard gum, which is capable of being colored as desired and seems almost indestructible. The bronze pectorals were inlaid in a similar manner and heavily gilt; possibly in some cases they are undertakers' substitutions for gold;" they seem very rare, the best being that of Rameses III in the Mr. Hilton Price's collection. The only one the British Museum (No. 22,840) is a hawk with very large wings, and spread out, and holding in its claws two feathers. Silver and lead are of excessive rarity, the porcelain ones are the commonest.

The earliest pectoral known belongs to Aahmes, first king of the xviii dynasty, now in the Gizeh Museum. It is of gold, as are all the earliest: those of porcelain come later, mostly from the xxI to the xxvi dynasties: some of the stone and steatite ones in the British Museum are probably of the xix and xx dynasties. There is a marked difference between those in gold and in stone or porcelain. The gold one of Aahmes is the most beautiful piece of Egyptian jewelry known, and represents the king standing on a boat between two gods who are pouring the water of purification over his head. In the gold pectoral of Cha-em-uas, son of Rameses III, the shrine encloses a *uræus* and vulture, side by side, while over their heads is a hawk with ram's horns, over which is the cartouche. Two other gold pectorals, of the xix dynasty, are illustrated in Mariette's *Le Serapeum*. The bronze pectoral of Mr. Hilton Price is of the usual shrine form but above the cornice are seven large *uræi* inlaid and crowned with disks, and on either side is an inlaid *uræus* crowned with the *hât* and resting on an *ankh*. The king (Rameses III) kneels in front of Amen Ra behind whom is Chonsu, also seated. Behind the king stands Mut.

There is a curious wooden pectoral in the British Museum heavily gilded and inlaid in a style similar to the metal ones. In many of the glazed steatite pectorals the subjects are somewhat similar to the bronze one described above and probably of the same age; e. g., Brit. Mus. Nos. 7852, 7850, 7859, 7860. In most of the porcelain pectorals the beautifully carved hard stone scarabaeus either with or without wings forms the central subject, being let into the porcelain (as they are also into the stone pectorals). Those without it have the subject generally painted in outline, usually representing the deceased standing or kneeling, worshipping Osiris (or Anpa). The 30th chapter of the Ritual often inscribed on the scarab shows the connection between the heart scarab and the pectoral. Of unusual examples there is not room to speak. There seems to be no fixed ritual form attached to

the pectoral, and the writer is inclined to regard them as pure ornaments.

ASIATIC INFLUENCE IN THE ART OF AMENOPHIS IV.—A short paper by Mr. W. St. C. Boscawen in the *Babylonian and Oriental Record* (Vol. vi, 2) entitled "Syrian names at Tel el-Amarna," is mainly concerned with establishing the fact of a large element of foreigners, principally Syrians, at Tel el-Amarna under the reign of Amenophis IV. He calls attention at the start to the fact that the present name generally stated to be Tel el-Amarna was found by him and Mr. Newberry to be Tel beni-Amran "Mound of the sons of Amran" or "Mound of the Syrians." [This hypothesis has been declared to be untenable and the correctness of the name Tel el-Amarna upheld.] Aside from the author's attempts at establishing the Asiatic character of many of the names of high personages found among the monuments on this site, it is interesting to note the fact that the sculptor who made the statues of Khu-enaten's daughters, named Atua or Tua (?) was the "royal sculptor of the royal wife Tii." Now, queen Tii was, we all know, a Mesopotamian princess and apparently a fanatical upholder of the foreign element. She probably trained her son Amenophis IV in his Asiatic proclivities. It is natural to suppose that her special sculptor was an Asiatic. This coincides precisely with the style of the art in the royal palace and the tombs, and we can refer on this point to Mr. Petrie's interesting remarks in the *JOURNAL*, Vol. VIII, p. 106, sq. Both in subject and treatment the art is essentially non-Egyptian.

THE ASIATICS AT TEL EL-AMARNA.—Mr. St. Chad Boscawen writes from Egypt:—The cuneiform despatches found upon the site of Tel el-Amarna in 1887, as well as the names occurring in the Egyptian inscriptions in the tombs, clearly indicate that the city was largely populated by Syrians and other Asiatics, who were attached to the suites of Tii and other Asiatic queens of Amenophis III, as well as to the person of Khu-en-Aten himself. The names—such as Huia, Ruda or Rudua, Mahu, and Tutu—are certainly not pure Egyptian, and have their best equivalents in Asiatic names found in the despatches or documents of the age. We may well compare such names as Khaia, Warda-Makhu, all found in the despatches. Tutu is an especially interesting name, as it is the Babylonian god Tutu. Tutu, the Akkadian equivalent of Marduk, was the morning and evening star—that is, the Babylonian Mercury—and was afterwards identified with Merodach as the morning and evening sun. He is called in the inscriptions by the title of the "restorer and creator, or generator (*mūallidat*) of the gods (stars)." This name becomes of particular importance when we remember that it is in the tomb of Tutu

(in the S group) that the beautiful hymn to the Sun-god is found. The more one examines the remains of the city of Khu-en-aten—the construction of the tombs, the art, the architecture, and sculpture, and the names of the officials mentioned—the more convincing becomes the evidence of a preponderating foreign Asiatic influence over all.

AN INSCRIPTION OF KHU-EN-ATEN.—One of the few monuments of the “heretic King” Khu-en-Aten or Amenophis IV in the British Museum is illustrated in the *Proc. of the Soc. of Bibl. Arch.* (xv, 4). In its inscriptions there are mentioned besides the king his wife Nefer-nefcru-Aten-Neferti, the Babylonian princess, and his daughter Aten-merit. Altogether contrary to custom the wife is mentioned only incidentally as the mother of the daughter, the object of the inscription being to glorify Khu-en-Aten and Aten-merit. Among the numerous inscriptions of this reign in the *Denkmäler* not one is to be found similar in this respect. Aten-merit was the eldest of the king’s seven daughters (he had no sons) and she married Saa-nekt Kaeperu-Ka-Ra, one of the three ephemeral kings who succeed her father. The erasures are interesting. The queen’s name has been erased in both places where it occurs. It is particularly to be noted that the word *aten* (the name of the chief god) is nowhere mutilated, except in the queen’s name, though it occurs in nine other places, and as this fact is observable on other monuments it shows that the attack upon Khu-en-Aten’s monuments was of a personal rather than a religious nature; and this hatred extended to the whole of the Khu-en-Aten dynasty, including especially his three successors.

ALABASTER QUARRIES.—Mr. Percy E. Newberry writes: “Whilst our camp was at El Til, I took the opportunity of exploring the desert behind the hills (named Gebel Abu Hasär, “the hill of the Nummulites”) in which the tombs of Khu-en-aten’s courtiers and court officials are situated, with the result that I have found several more alabaster quarries. Last season, it may be remembered, I discovered the celebrated alabaster quarry of Hat-Nub, containing, among others, cartouches of Chufu, Nefer-ka-ra, and Mer-en-ra. The quarries that I have found this season contain cartouches of Teta, Amenemhat II, Usertesen III, and stelae of Rameses II and Menephtah I. The latter, with an inscription of several lines, mentions the cavalry and infantry of the king. In the Siut Wadi, I have also found another fine stela of Khu-en-aten, dated in the sixth year of his reign, the first twelve lines of which are in nearly perfect preservation.—*Acad.*, March 12.

ATHOR GUARDIAN OF THE MINES.—Mr. St. Chad Boscawen writes: “I am indebted to Mr. Percy Newberry for the data by means of which to clear up partially an interesting archaeological problem. Shortly be-

fore leaving England, Mr. Theodore Bent showed me the photographs he had taken of the antiquities obtained by him at Zimbaye, in Mashonaland. Among the objects discovered were a number of rudely carved figures of hawks, with curious rosette-shaped eyes. These were placed in prominent positions over the mines, and were evidently intended to represent divine guardians of the sites. I was at once reminded of the association of the goddess Athor and her sacred hawk with the mines in Egypt. On the rocks overlooking the mines in the Waddy Magharah the hawk of Athor is sculptured; and, from the time of Senefui onwards, the region of the Mafka, or turquoise, was sacred to her. Notice, also, the epithet applied to her at Dendera, "I bestow upon thee the mountains, to produce for thee stones to be a delight for all to see." Additional proof of this association of Athor with mines and quarries has been afforded by Mr. Newberry's recent discoveries. A little to the northeast of the Northern Tombs of the heretic city* he has recently found a large limestone quarry excavated far into the rock, with massive columns left to support the roof. On one of these is cut, in bold characters, the cartouche of Tii, the powerful wife of Amenophis III. On another column we have the divine name of Athor cut very clearly, thus consecrating the quarry to her. This last week I have visited, in company with Mr. Newberry, a still more ancient quarry of fine alabaster situated about twenty miles due east of the Siout road, slightly southeast of Hadgi-Kandul. This quarry was a natural quarry, afterwards worked as a quarry. The alabaster is of a fine quality; not such as was used for building, but for small sculptures, and that with brown veins for toilet pots, dishes, and for the canopic vases. Over the lintel are several cartouches of Teto, of the vrth Dynasty, and a rude portrait of the king, wearing the Uraeus serpent. In the interior, of which one aisle measures about 80 feet, the other 108 feet, in length, there are cartouches, or wall paintings, dated in the reigns of Amen-em-hat II and Usertesen III, but not of a later date. Over the centre of the lintel of the entrance is sculptured a rude hawk, again consecrating the mine to Athor. The frequent presence of the sacred hawk of the goddess over the mines in Egypt, and in districts beyond the Nile Valley, and their discovery so manifestly as divine guardians over the Mashonaland mines by Mr. Bent, would seem to indicate a connection between ancient Egypt and Zimbaye, but through what channel it is difficult as yet to say. Another point indicating similarity of work must also be noted. Mr. Bent was fortunate enough to find an ingot mould in the South African mines; and the shape, with indented terminals to hold the cord for the carriage by donkeys or slaves, is exactly the

shape of the large ingot or package on the back of the donkey in the procession of Amu in the tomb of Khnumhotep, at Beni Hasan. It resembles also the Phoenician tin ingot dredged up in Falmouth harbor, and is no doubt the form found most portable by miners in prehistoric times, and preserved until later ages.—*Acad.*, March 4.

A LYDIAN INSCRIPTION.—Prof. Sayce writes: I have a discovery to announce which will be of interest to the students of the archæology of Asia Minor. While I was at Silsilis, my friend, Mr. Robertson, found on a rock immediately above the spot where my dahabiye was moored, an inscription in two lines of large, finely-cut letters, which I believe is an example of the long-sought-for writing and language of Lydia. The alphabet of the inscription resembles that of Phrygia, differing from it only to the same degree as the alphabet of the Kappadokian inscription discovered by Hamilton at Eyuk, while the forms of the characters are the same as those on the columns presented by Kroesus to the temple of Ephesus, which have been published by Sir Charles Newton in the *Transactions* of the Society of Biblical Archæology. Moreover, the inscription contains the proper names Alus Mrshtul. That Alus was Lydian we know from the name Alu-attēs; and since Mursilos signified "the son of Mursos," the suffix *il* or *ul* must have denoted the patronymic. Assur-bani-pal tells us that the successful revolt of Psammetichos of Egypt from the Assyrian yoke was due to the assistance he had received from Gyges, the Lydian king; and the Ludim or Lydians are accordingly mentioned more than once in the Old Testament (Jer. xlvi. 9, Ezek. xxx. 5, Gen. x. 13) as part of the Egyptian population.

The words of the Lydian inscription are divided from one another by short lines, like the words in the Karian texts. I have discovered two more of these latter texts on the rocks between El-Hoshin and El-Hammām, a village which lies immediately to the north of Silsilis. One of the two texts is among the longest that has yet been met with, and some of the letters composing it have peculiar forms. In the same neighborhood, besides some Greek *graffiti* of no great importance, I came across a curious picture cut with considerable skill upon the rock. A woman, clad in a long robe and bonnet, stands with some object in her hand behind a Greek warrior, who is directing a spear at the breast of a naked man, who kneels in front of him, with his arms outstretched in the attitude of entreaty. Behind the latter stands a nude woman, with a garland of flowers in one of her hands, and behind her again a naked boy, who is leading a panther by a string. Below the whole tableau are the words: Τάρκον χαῖρε. The name of Tarkon seems to refer us to Isauria. The Greek words are in the

cursive hand of the Petrie Papyri and may therefore be dated in the third century B. C.—*Acad.*, March 18.

KING RA-MER-EN.—Prof. Sayce says: I have discovered an inscription on the southern side of the Cataract, which is of considerable historical and geographical interest. It is engraved on a granite rock on the eastern bank of the Nile, opposite the southern end of the island of El-Hesbeh, and is dated "the 24th day of Paophi in the 5th year of Ra-mer-en, the King of Upper and Lower Egypt." It is thus the first dated monument of this Sixth Dynasty monarch that has been found. It further describes the king as "beloved by Khnum the Great (god), the lord of the land of Ra(?)nefer," which accordingly seems to have been an early name of the quarries of Assuan. The inscription, which is the memorial of a certain Aa-hotep, "the governor of the mountain land," goes on to state that the "chiefs" of the lands of Arht and Wawat had assembled (?) in the island of Senem, the modern Bigeh. The countries of Arht and Wawat are mentioned in the famous inscription of Una, as well as in the tomb of Hirkhuf, excavated at Assuan last year by the Crown Princess of Sweden and Norway; and the very phrase used in regard to them by Uno recurs in the text I have just found (see Prof. Schiaparelli's memoir on the Assuan text, *Una tomba egiziana inedita della VI.^a dinastia*, Rome, 1892, p. 26). Like Aa-hotep, Una and Hirkhuf flourished in the reign of Ra-mer-en. Dr. Brugsch has already shown that Wawat was the district on the eastern bank of the Nile which extended southward from the First Cataract; and the inscription of Aa-hotep now makes it probable that Arht was the corresponding district on the western bank.—*Athenaeum*, Feb. 25.

NOTES BY PROF. SAYCE.—Mr. Newberry has been a little too hasty in regard to the name of Tel el-Amarna. [See also p. 566.] Norden, in 1737–8, is the first European traveller, so far as I can discover, who mentions the place, and he heard it called both Beni Amrān and Amarna. His words are "Beneamraen ou Omarne. On comprend sous ce nom une étendue de terre où sont situés quatre villages voisins les uns des autres." In fact, Amarna is the only regular Egyptian form, like *Barabra* from *Berberi*; Amran is either Bedouin or schoolmaster's Arabic. Norden is quite right in saying that the name of the Beni Amran or Amarna is applied to a district. The district extends as far south as the Gebel Abu Feda, where the monastery known to maps and travellers (including Norden) as Dér el Qusseir or Qussūr, is known to the sailors on the Nile only as the Dér el-Amarna. I spent some hours there copying the Greek *graffiti* in the quarry dedicated to Aphrodité Urania of Kusae. In a wadi immediately to the

north of the quarry I further discovered a tomb of the early period. Traces of the original hieroglyphic text belonging to it still remain, and there are three hieroglyphic graffiti in it, one of them by a scribe of Amon.

I have paid a visit to the great quarry behind Qua, in which are the curious painted representations of the god Antaeos described by M. Golénischeff in the *Zeitschrift für Aegyptische Sprache*, 1892. Unfortunately they were shockingly mutilated a few years ago. There are many demotic inscriptions in the quarry, but for the most part too much injured to be copied by any but a demotic scholar. In one of them the name of the god Set occurs, and two are accompanied by Greek versions dated respectively in the years 21 and 31.

Northward of the well-known tombs of Rayyâyna, and at an angle of the mountain southward of Bedarî, I found a new group of tombs, as well as a curious niche cut in the rock. Above it, and on either side of it, the stone has been carved to represent the stems of trees.

I have come across a new fortress or palace of the high-priest Men-Kheper-Ra, the contemporary of the xxi dynasty. This is close to a village called Rawâfa, about midway between Luxor and Tûd. The building was a large one, and was constructed of large kiln-baked bricks, stamped with the cartouches of "Men-Kheper-Ra, the high-priest of Amon." The building lay a little to the north of a necropolis of the Roman period, which was being excavated by the fellahin when I visited the spot in 1886. Bricks of the same size and stamped with the same cartouches are found at the old fortresses of El-Hibeh and Gebelén.

At Marâshdah, opposite Dishnch, and to the south of Hau, a new burial place of the time of the Old Empire has been discovered by the fellahin. Among other objects that have come from it are some fine scarabs with the name of Pepi I of the vi dynasty.

I will only add that a hitherto unknown oasis is said to have been discovered at a distance of five days on camels from Siût, and that temples and inscriptions are reported to exist there in a good state of preservation.—A. H. SAYCE, in *Acad.*, April 8.

ASSUAN.—THE SNAKE GODDESS.—Prof. Sayce writes: Six miles north of Assuan I made a careful copy of the stele I discovered there last year, as well as of the hieroglyphic graffiti round about it, which show that a chapel dedicated to the snake-goddess once stood on the spot. Another inscription which I found some way to the north of it, where the limestone crops up above the sandstone behind the village of Hindallab, states that the whole district was called "the mountain of the snake." The inscription in question is the record of a certain

Baba, who had "steered a ship with its crew" to the place, in the eleventh year of a king whose name is unfortunately not given. The inscription, however, belongs to the age either of the Old or of the Middle Empire.—*Acad.*, March 18.

BAKLIEH AND TELL MOKDAM.—REPORT OF M. NAVILLE.—The following is the substance of M. Naville's report on his work during the winter of 1892-93:

"Travellers by railway from Mansoorah to Zagazig first reach a station of little importance called Baklieh. There they may see on their left a small mound, which is the site of one of the cities of the nome of Thoth, the Hermopolis of the Greeks. Further south, on the same side, near the village of Tmei el Amdid, are two extensive mounds, on one of which may be noticed a building which looks like a small tower, and which is a granite shrine still standing. There we began our campaign last winter, with the hope of finding, if not many monuments, at least some new inscriptions which might throw light on parts of Egyptian history which are still in nearly complete darkness; I mean especially the dynasties following the XII. I must say that in this respect our hope has been sadly disappointed.

"At Tmei el Amdid there are two very extensive mounds, separated by a valley in which there is a village. The western one, which the natives call Tell Tomai, the site of the city of Mendes, is more ancient than the other: it has the remains of the old Pharaonic temple. The southern one, which is quite as large, is covered with Greek and Roman works, remains of what may have been the governor's palace, indicated by columns which belonged to a portico, besides aqueducts and constructions which seem to have been barracks. This very large mound was covered with thousands of houses and public buildings, the majority of which are made of small red bricks, joined with the well-known white Roman cement. These bricks are of such good quality and so well preserved that they are still largely used by the natives. The neighboring villagers employ no other building material than these bricks, which are already 1500 years old.

"We settled first on Tell Tomai, close to the high enclosure which surrounded the *temenos*, the sacred ground on which the temple was built. The site of the temple is well marked, especially by the high monolithic shrine in red granite. The inscriptions of the shrine were first published by Burton: they merely record the names and titles of Rameses II. As the temple was on raised ground, higher than the rest of the *temenos*, the shrine was supported by a large basement, which consisted of enormous limestone blocks about fifteen feet high, and extending underneath the whole rectangular hall in which the

shrine was erected. This basement has been extensively quarried out, and the stones burnt for lime only a few years ago, so that the shrine stands isolated, surrounded by deep holes. In front of the hall of the shrine were two others, some of the stones of the basement being still *in situ*—they bear the names of Rameses II. and his son Meneptah. I cut a great number of trenches in the area of the two halls; everywhere I came across chips of stone broken and burnt for lime. The only monument I discovered is a statue now exhibited in the Gizeh Museum. It is a standing king of natural size. The material is hard limestone of Gebel Ahmar; the statue was never finished, the polish is wanting, and traces of the hammer are still visible all over the body. Headdress, attitude, emblems in the hand, are all Pharaonic. The style would point to the Saïte period; and a fragment of the same stone found close to the statue, which possibly was connected with it, suggests that it was Apries. But the head has been re-worked, the royal asp has been erased, and the whole face has been re-cut, so as to give it the appearance of a Roman emperor, who has been identified as Caracalla by Mr. Murray and Mr. Grueber from the busts in the British Museum. The dark veins of the stone and the rather rough cutting give the head a grim and ill-natured expression, which well agrees with the character of that emperor. This monument presents a curious mixture of Pharaonic and Roman art.

"Except the inevitable Rameses II., the only kings whom I came across in the excavations at Tmei el Amdid are Saïtes. A cartouche of Psammetichus II. was found on a fragment of the statuette of a priest; Apries on a stone in the temple, and on a limestone slab in the mosque of the neighboring village of Roba; Amasis on a block discovered near the shrine, which was part of a dedication to the god of the place, the ram-headed divinity, called also 'The Living Spirit,' and Seb. The vast enclosure encircled more than one building. In front of the temple, towards the north, are traces of several constructions, which may have been connected with the cemetery of sacred rams which was near the temple. In one of the mounds, on which was erected a building of that kind, was discovered a very fine capital with a Hathor head in black granite. The style of this capital was not the same as that I found at Bubastis, a specimen of which is in the British Museum. At Tmei el Amdid the type of the face is different, the nose is more aquiline; the features remind one of the profile of Rameses II. as it may be seen in some of his statues. The locks of hair are not so heavy as in the specimen from Bubastis, which I believe may be assigned to a much earlier epoch. Above the head, was a little shrine, with a royal asp projecting out of it. It has the

form of those which are on the top of the musical instrument called the sistrum. The whole column, shaft, and capital represented a sistrum of gigantic proportions. A sistrum is one of the usual emblems of the goddess Hathor.

" Along the enclosure walls on the north side were the graves of the sacred rams, and in some parts the place is strewn with their coffins. Most of them have been dug out long ago and the lids broken up. Brugsch Bey, who excavated them about twenty years ago, succeeded in removing one of the lids with religious inscriptions of the time of the Ptolemies. It is now in the Museum of Gizeh.

" In the Roman mound I dug chiefly in the tombs, and found only a great deal of common pottery, large amphoræ, and objects of that kind without any historical or artistic interest. The most interesting place in the Roman mound is the library. It consists of a series of rectangular chambers of different sizes. All those rooms, a few of which have been cleared, were filled with papyri; it was either the library or a place for keeping the archives of the city. I should rather think it was a library, because of the size of the rolls. Unfortunately they have all been burnt, and you may see in the middle of each room the remains of the fireplace where these invaluable documents have been thrown. They are now quite carbonized, like those of Herculaneum, or even in a worse state. They are most difficult to take out; they crumble to pieces when they are loosened from the earth which covers them, but looking sideways the characters are still discernible. They generally are Greek, in good handwriting. As for those which have escaped the fire, they are quite hopeless. The moisture and the salt of the soil have reduced them to a kind of brownish paste. I tried to see whether some of the carbonized papyri well packed in cotton would stand the journey; but the contents of the five boxes which I sent to London are nothing but crumbs of charcoal and ashes. What treasures we probably have lost by the destruction of the library of Mendes!

" From Tmei el Amdid we went over to Baklich. There is an enclosure, in the centre of which stood a temple which never was finished; for near the entrance is a heap of enormous blocks, just as they came from the quarry. Among them are two large capitals, in the form of a lotus flower. They are unpolished. Probably part only of the temple was completed, but no trace of it remains. The interest of the place centres in the necropolis of ibises, for the place belonged to the nome of Thoth, *i. e.*, to the Hermopolite nome. The mound of the necropolis has for many years been the mine from which the fellahs got all the bronze ibises which filled the shops of

the dealers in Cairo, as did the cats of Bubastis. Like those of the cats, the bones of the ibises were gathered together in heaps, and the bronzes thrown among them. When I first visited the mound in 1885, it was of considerable height; it has now been so thoroughly worked that it is in certain parts level with the ground.

"The only result which was obtained in Bakleih was the determination of its Egyptian name. The geography of the Delta in Pharaonic, and even Greek times, still presents many doubtful questions. The excavations carried out by Mr. Petrie and myself have thrown light on several of them; but a good many points are still obscure. It is a subject which Egyptologists must steadily keep in view. Bakleih was the sacred sanctuary of the Hermopolite nome, and it was called in Egyptian BAH. I discovered it from fragments of the destroyed temple which are in the neighboring village, where the name is mentioned in connection with a priest of Bah. It is on a small fragment of a black basalt sarcophagus, for a priest Ahmes of the Saïte period. The coffin bore the hours of the day and night, and the title of the special priests of Thoth was 'the bald-headed.'

"From Bakleih we went further west to a mound called Tell Mokdam, not far from the Damietta branch of the Nile, between the Arab village of Sahrget el Kuba and the modern city of Mit Gharn. Cte. Jacques de Rougé assigns to this old city the Greek name of Leontopolis; and this determination seems to have been quite justified, as the god of the city was a lion. It belonged to the nome of Athribis, now Benha. The site of the temple is still visible; but the building has been entirely destroyed, and the stones carried away. Part of it is now a cornfield, and the trenches which I cut across the area did not give any result. The work was chiefly carried on at the northwestern corner of the mound; there the fellah had found a short time before the base of a statue of the XIIth dynasty. The excavations proved that there had been a small sanctuary originally built by Usertesen III, in which Rameses II had put some of his statues, and which had been usurped by Osonkor II. Besides the base found by the fellah, I discovered another, a little larger, and several fragments of Rameses II, among which the lower part of a standing statue. The two bases of Usertesen III are of red limestone and very well worked. On both sides of the throne are represented the Nile gods tying the plants of Upper and Lower Egypt around the sign *sām*—the sign of junctions. One of these statues is particularly interesting. It has been usurped by Osorkon II, who cut his cartouches right across those of Usertesen without erasing them first; besides, an inspector, a royal secretary, wrote his name on the lower part of the

statue, and informs us that the sanctuary where the statue stood was called 'the house of Karaoma,' Osorkon's queen. It is curious that this king, who, a few years back, was hardly known except by name, came out in all my excavations; he certainly must have been one of the most powerful of the Bubastites.

"In a former excursion to Tell Mokdam, I had seen the base of a statue of the XII or the XIII dynasty which had been discovered in Mariette's time and left on the spot. This mound is important, because it bears a cartouche engraved rather carelessly over an old inscription. The cartouche is not very distinct; and Mariette, Devéria and Ebers, taking the first sign for the sign of Set, considered the oval as being that of a Hyksos king. Ebers even reconstituted the name as being Salatis, and for the last twenty years his interpretation has generally been adopted. This valuable monument, which has been brought to the Gizeh Museum at the cost of this society, was one of the chief attractions which induced me to go to Tell Mokdam. After a careful study, and with the help of several paper casts, the name came out quite clearly. It has nothing to do with Salatis, or with any of the Hyksos: it reads Nehasi, the negro. I consider the deciphering of this name as the most important result of the work at Tell Mokdam. It is connected in a remarkable way with a discovery made by Mr. Petrie at San. In turning the blocks of the temple, Mr. Petrie found that the royal prince, the first-born, Nehasi, had erected buildings to Set, the god of Roahtu. In both cases Nehasi is written with the pole indicating foreign nations, and I see no reason why he should not have been a genuine negro. Thus, a negro has been king of Egypt, and not by conquest, but by right of inheritance, since before his being a king, we see him called the eldest of the royal princes, the heir to the throne. If he was a negro, surely his father and mother must have belonged to the same race. The King Nehesi occurs also in the Turin Papyrus, among the kings of the XIII and XIV dynasty, and according to this document, must have had a reign of several years. This fact is very important; the statue of Tell Mokdam perhaps throws an unexpected light on a very obscure period of Egyptian history. Are we to suppose that in the long period so little known, which extends from the XII dynasty to the Hyksos, one of the causes of the anarchy which probably prevailed at that time was invasions of the negroes? Did the Ethiopians, before the invaders from the East, succeed in conquering Egypt and coming to the throne? We have no proof of it except that nearly all the expeditions of the XII and XIII dynasties were directed against the Ethiopians, who must have been more or less dangerous neighbors; and it

is quite possible that, by a turn of fortune so often seen in the history of Eastern empires, the negroes may have had their day and have become masters not only of Upper Egypt but even of the Delta. I believe that the part played by the Ethiopians in the history of Egypt is far more considerable than we thought of; and the value of the discovery at Tell Mokdam is to give us the name of a king older than the Hyksôs conquerors, and who evidently belonged to a totally different race. It is quite possible that, instead of looking always towards the East in order to fill up the considerable gaps in the XIII and XIV dynasties, we shall have to turn towards the negroes, and perhaps some day excavations in Upper Egypt may bring us some unexpected light"—*Acad.*, Jan. 28.

BIRBET-EL-HAGGAR.—The excavations conducted here by Count d'Hulst for the Egyptian Exploration Fund, have yielded a certain number of sculptured and inscribed slabs of considerable interest. The work is necessarily somewhat slow on account of the enormous size of some of the granite blocks, ranging up to forty tons in weight, which have to be removed; two thousand of these have already been dislodged from the mound. A few years ago the monument was used as a quarry for millstones; vast numbers of blocks were broken up, and many now remaining show on their sculptured surfaces the ineffectual attempts of the natives to split the granite. Probably for centuries previously the stones of the temple had been used for building purposes. The temple was dedicated to Isis, and the cartouches of Nectanebo and Ptolemy Philadelphus fix its date. Count d'Hulst, however, thinks that an earlier temple existed on the site, as he finds traces of older work on the interior faces of some of the granite blocks.—*Athen.*, March 25.

CAIRO.—GHIZEH MUSEUM.—ARCHAIC STATUES.—Among the most important of the recent acquisitions of the Ghizeh Museum are two statues (below life size) of the ancient empire, found on January 31 last at Saqqarah. The more attractive is the figure of a seated scribe, recalling the celebrated statue of the Louvre, and not inferior to that famous work in artistic qualities. The material is calcarous limestone, tinted red for the flesh, when the carving was completed, and black for the hair. The eyes are of quartz, the outer lines of the lids being in bronze, which, doubtless, originally had the tint of kohl; even now the pupils retain the flash and brilliancy of real life. Nothing could be truer to nature than the modelling of the nude flesh; the form is natural, yet treated with due regard to the gravity of sculpture. In the best sense the work may be said to be typical, inasmuch as it presents us with a perfect type of serene, highly-trained intelligence.

The scribe is seated cross-legged, and has paused for an instant, and, looking up from his papyrus, quietly regards the spectator. The work is of the fourth or fifth dynasty. One cannot help speculating how many generations it must have needed to produce that well-balanced head, and the strong, clear, methodical mind that looks out on the world with such masterful composure. Dr. Brugsch Bey has placed the figure in as favorable a light as it can be displayed, in the same room as the statue known as Sheikh-el-beled. Its height is 51 centimeters. The actual place of its discovery was in a mastaba of bricks, buried in the sand at Saqqarah.—*Athen.*, March 4.

DEPARTMENT OF ANTHROPOLOGY.—During the past winter a new department of anthropology has been opened at the Ghizeh Museum under the charge of Dr. Fouquet. It consists of two public rooms and a laboratory. Dr. Fouquet is engaged upon a scientific catalogue of the mummies, which will be limited to those of ascertained date and history.—*Acad.*, June 10.

CATALOGUE.—M. de Morgan has just issued a very useful little catalogue of the principal monuments exhibited in the museum. It contains some 330 pages of closely printed description and two plans, one of the rooms on the lower floor, and one of the rooms on the upper floor. It is an excellent piece of work, and every traveller and student will be grateful to M. de Morgan and to his able assistant, E. Brugsch Bey. An important section of the catalogue is devoted to the description of the mummies of kings and priests from Dér el-Bahari, and it is now possible, for the first time, for the intelligent traveller not only to see what has been discovered during the last few years in Egypt, but also to learn something about it. Every object described in the catalogue is plainly numbered, and thus a great reproach is wiped away from the administration of the museum. In little more than eight months MM. de Morgan and Brugsch Bey have arranged and opened forty new rooms, and produced a guide to them.—*Athen.*, March 18.

A STELE OF KHU-EN-ATEN.—A correspondent who has just returned from Egypt writes: "Behind Mr. Hatton's well-known shop in the Muski at Cairo there lies by the wayside a valuable though broken stela, representing the heretic king Khu-en-aten adoring the solar disk. The proprietor has already refused two offers, but will hardly now get the £50 which the Gizeh Museum once offered for it. It was found at the foundation of a house in the Muski, and doubtless came from Heliopolis."—*Acad.*, March 25.

DEYR EL-BAHARI.—EXCAVATIONS BY THE EGYPT EXPLORATION FUND.—We quote the following statement of M. Naville: "For the first time

since the Egypt Exploration Fund has existed, the society has received permission to excavate one of the temples of Thebes. It is an urgent duty for me to express my gratitude to M. de Morgan not only for having granted to the society one of the choicest spots in Egypt, but also for having considerably facilitated my work by lending me a tramway. It is absolutely necessary to have one in such a place, where the débris have to be carried to a considerable distance, in order to be quite sure that nothing of interest is being hidden in the course of the work.

" All travellers who have been at Thebes know the majestic cliff, in the form of an amphitheatre, at the foot of which is Dayr el-Bahari (the Northern Convent), known by the name since the Copts built a convent over the ruins of the old sanctuary. The temple is quite different from all others in Egypt, being built in successive terraces, the highest of which leans against the mountain on its northern and western sides. The length of the temple was much greater than its width; the sanctuary was a rockcut chamber, in the axis of the building, and opened on the upper terrace.

" Mariette first excavated the temple. Following the central avenue which leads to the sanctuary, he cleared a great part of the southern side, throwing over on to the northern side all the rubbish which he could not get rid of. The most important part of his discoveries consisted of the supporting wall of the upper terrace, with sculptures depicting a naval expedition to the land of Punt; the rockcut sanctuary of the goddess Hathor, where the goddess is seen in the form of a cow, suckling a young queen, Hashepsu, or Hatasu as she is incorrectly called; and the great hall of offerings. On the northern side, Mariette, and after him M. Maspero, dug out part of the portico at the foot of the upper terrace, and a small sanctuary corresponding to that of Hathor, which was found full of mummies of recent date.

" I settled near Dayr el-Bahari at the end of January, and started work at once in the part which Mariette had left untouched and covered with mounds of rubbish. I began with the upper terrace. I was obliged, owing to the steep slope, to establish two lines of tramway, the upper one carrying the rubbish to a short distance, the lower one taking it a long way off, to what is called the *birket*, a large depression used in former times as a claypit. Though I could not work so long as I wished, having been stopped by the fast of Rhamadan, the excavations led to important results. I cleared completely the northern half of the upper terrace, the description of which was quite unknown, and which is separated from the rest by a stout wall preserved only in its lower part. This wall, in which there are two doors, is the

southern limit of a part of the building, having a decidedly funerary character. I suppose it was connected with the burial-place of Thothmes I, which is perhaps somewhere in the neighbourhood.

"The western door leads to a long hall, with well-preserved sculptures of gigantic proportions, showing Hatasu and Thothmes III making offerings to Amon. Next to it is an open court limited on the north by the mountain, on the east by the remains of a chamber with columns. From that court one enters into a small rockcut chapel, the funeral chapel of Thothmes I. The ceiling, well painted in blue with yellow stars, is an Egyptian arch. The heretical king, and after him the Copts, have scratched out the figures of the gods Osiris, Anubis, &c.; but the king is well-preserved. He is seen there with two different queens: one of them, Athmes, is well known, the other one, Senseneb, so far as I know, has not yet been met with. An iron door has been put to the chapel by the authorities of the Ghizeh Museum.

Just before the door of this chapel is a building unique of its kind among Egyptian temples. It is a great square altar in limestone, to which access is given by a flight of steps. Until I discovered the staircase, I was in doubt as to the nature of the building. I thought at first that it might be a *mastabat*, the construction which covers the tombs in the Old Empire. The people who plundered the temple in ancient times evidently had the same idea, for they pulled down one corner of it in order to see whether it concealed a pit. All my doubts were removed when I could read the inscription. It says that a royal person—who is clearly Queen Hatasu, though her name is hammered out—"built a large altar in white stone to her father, Ra Harmahkis"; meaning perhaps her deified father, Thothmes I. The altar is a platform, 16 feet by 13 feet and 5 feet high, with ten steps leading up to it. It had a low parapet like the terraces, in order to prevent the offerings from falling into the court, and probably there was a smaller altar in hard stone placed on the top. It is the only altar of this kind known in Egypt. Mr. John Newberry, who, as an expert in architecture, gave me most valuable assistance, put back again some of the stones that had been thrown down by the plunderers; and, as all the blocks seem to be there, we hope to be able to restore the altar next winter.

"Another object, also unique, I found on the terrace above the chambers excavated by M. Maspero. It is one of the sides of a large shrine of ebony, more than six feet high, erected by Thothmes II. Ebony never being found in large pieces, the whole panel is made of small fragments held together by ebony pegs, which have been used

with the greatest skill as part of the sculpture. This shrine was erected by Thothmes II, who says in the inscription that it was made of ebony "from the top of the mountains" in honor of his father, Amon. But everywhere the figure of Amon has been cut out with a knife, evidently by the heretical kings. It is the same with another part of the shrine which I discovered close by, a leaf of the folding door which closed it, which has rings of bronze for the bolt. It was a very difficult and delicate task to lift out the panel and to pack it, without running the risk of seeing the whole thing falling to pieces, as ebony is a very heavy wood. However, we succeeded in removing it without the slightest injury from the terrace where it had been lying for many centuries. It was encircled in a double frame and carefully packed in a box, made under Mr. Newberry's supervision. It is now on its way to the Ghizeh Museum, where it will have to be repaired by a skilled cabinet-maker before being exhibited.

"The Copts who built their convent over the temple have practised the most ruthless destruction among the very beautiful sculptures which adorned it. They have scattered all over the building parts of a most interesting scene which I believe belonged to the lowest terrace. Some of its fragments are built into walls, others have been used as thresholds or stairs, others piled together with capitals and bricks in the clumsy partitions which they raised between the rooms of the convent. I carefully gathered and stored all the blocks I found belonging to that series which represented the transportation of obelisks and other heavy monuments. The most interesting of these blocks shows an obelisk lying on a high boat, where it has been placed by means of a sort of sledge on which it still rests. The high boat is towed by a small one rowed by several men. Unfortunately, the block is small; we see only the top of the obelisk, but we may hope next winter to find the remaining parts. It is the first time anything has been discovered relating to the transportation of obelisks.

The last thing I found is a very curious inscription concerning the birth of Hatasu and her accession to the throne. It is on the supporting wall of the upper terrace. We see the god Anubis rolling an enormous egg and goddesses suckling the young queen; further we come to her enthronement by her father. Thothmes I is seen in a shrine, stretching forth his hands towards a young man, who is the queen. The young man is hammered out, but still discernible, as well as the long inscription which accompanies the pictures and which relates how Thothmes called together the grandees of his kingdom, and ordered them to obey his daughter. There is an obscure allusion to his death, and a description of the rejoicings when she

ascended the throne. The date, I believe, may be interpreted in this way: that the first of the month Thoth, the first day of the variable year, and the beginning of the seasons, or of the natural year, fell on the same day.

This short summary shows how rich a place is Dayr el-Bahari, and how much we may expect from further excavations, which I hope will be resumed in the autumn. I must add that in the rubbish I found a great many Coptic letters written on potsherds or on pieces of limestone. They contain the correspondence between certain monks called Victor, John, Abraham, Zachariah, etc. They usually begin with a salutation, and sometimes with the formula: "In the name of the Father, of the Son, and of the Holy Ghost." These letters have all been sent to Europe, and are the property of the Fund.—EDOUARD NAVILLE, in *Acad.*, July 1.

EL-KAB.—Mr. G. Willoughby Fraser contributes to the *Proceedings of the Soc. of Biblical Archaeology* (vol. xv, p. 8, 1893,) a note on his visit to El-Kab during the past winter. Among the inedited inscriptions which he copied are the following: (1) an important graffito of the vi dynasty, whose chief interest lies in the fact that it appears to point to there having been a temple near here as early as the vi dynasty. The date appears to be year 2, the third month of Pert, the fifth day of the month. No king's name is given, but, as the proper names are confounded with that of Pepi I, it perhaps refers to his reign. (2) On a large free-standing rock, with many names and titles of the vi dynasty surrounding it, is a square tablet bearing the name of a king who is only known by two other examples: he appears to have been called Saradudunes, and his name is followed by "Khām-aas, the amanuensis of the son of the sun Dudemes." There follows a list of titles and names which, with few exceptions, belong to the vi dynasty or thereabouts. A graffito of the xviii dynasty is interesting as it was cut by or for a man named *Next* who lived under a queen, perhaps Hatshepsut.

In visiting the tombs one of the vi dynasty was noticed which had previously been overlooked. It was never entirely finished and has now fallen in, but the finished part shows the roof cut to represent the half-round under sides of the rafters of a wooden roof. Mr. Fraser states that as far as he is aware the only other example of this occurs in a tomb of the v or vi dynasty at Tehneh (owner's name destroyed). The roof was supported by columns, one of which has a finished capital with twenty-three (?) fluted sides, bound with five bands below, representing no doubt a palm. It is very unlike the rough capitals of the same age at Sheik Said, and is interesting as one of the

earliest examples as yet known. During this year a sphinx in white marble limestone from El-Kab has been set up in the museum at Ghizeh; it is identical in style with the black sphinxes from Tanis, which Mariette supposed to be Hyksos monuments. There is no inscription on it, original or defaced.

GEBEL ABU FEDA.—AN EARLY NECROPOLIS.—Mr. Percy E. Newberry, Mr. St. Chad. Boscowen, Mr. Childe Pemberton, and Mr. Percy Buckman arrived at Assiut in Upper Egypt on March 3, after having thoroughly explored the desert for several miles east of Gebel Abu Feda. A short distance to the south of that high range of hills, Mr. Newberry visited the necropolis of the governors of the Antaeopolite nome of Upper Egypt, who ruled during the vith dynasty, about 3800–3500 b. c. One of the tombs is of very considerable importance, as it contains numerous interesting inscriptions and paintings, which throw much light upon one of the earliest periods of Egyptian civilization. It consists of a large rectangular chamber excavated high up in the hill side; and the inscriptions mention that it was hewn for an hereditary priest named Jau, who was not merely governor of the Antaeopolite nome, but also a priest of the Pyramid of Pepi II. It is hoped that complete copies of the paintings in this beautiful and very ancient tomb will be made by Mr. Percy Buckman before the close of the present season.
—*Acad.*, March 25.

Mr. Griffith adds to the above a note recalling that these tombs were discovered between forty and fifty years ago, by Mr. Harris of Alexandria. Sir Gardner Wilkinson's MSS. of 1855 contain copious extracts from the fine scenes in the tomb of Ja-u (*Dew*), and, accordingly, they are referred to by that writer in all the later editions of Murray's Guide. "The tombs, which are in two groups, behind the village Beni Muhammed el Kafür, have seldom been visited. On my journey in 1886 through Upper Egypt with Mr. Petrie, we saw only the nearer and less interesting group, in which the quarrymen were busy at the time; but a few years later Prof. Sayce copied a valuable inscription in the tomb of Ja-u, and published it with a translation by Prof. Maspero (*Recueil de Travaux*, vol. xiii). The names of deities and localities in these ancient tombs are very remarkable. Complete copies and facsimiles of the fine paintings will be extremely welcome."
—*Acad.*, April 1.

GEBELEN.—Some notes on a visit to this site are given by Mr. G. Willoughby Fraser in the *Proc. of the Soc. of Bibl. Arch.* (xv. 8, 1893). The results of the recent excavations here by M. Grébaut were: the remains of a Ptolemaic shrine built by Ptolemy IX, containing a large basalt statue and surrounded by Ptolemaic houses in whose walls and

foundations were found several older inscribed blocks of limestone, amongst which were portions of an early temple built by Menthuhotep of the xi dynasty, whose cartouche was found in two forms. The kings whose names occur here are as follows: Dudumes vi-xi (?) dynasty; Menthuhotep, xi dyn.; Lenb-i-man, xiii or xiv dyn.; Ra-a-user (?), xvii, Hyksos; Hor-em-heb, xviii dyn.; Leti I, xix dyn.; Penedgen III, xxr dyn.; Ptolemy IX, Evergetes III. There is considerable doubt whether to place Dudumes in the xi or in the vi dynasty.

KOM OMBO.—EXCAVATIONS BY M. DE MORGAN.—The following is a summary of the excavations which, during the past winter, M. de Morgan has been carrying out on a large scale at Kom Ombo, about thirty miles north of Aswān in Upper Egypt, and he has succeeded in uncovering there a temple of considerable importance. As is well known, the temple is double, and consists of a large court containing sixteen columns inscribed with the cartouche of Tiberius, and a hypostyle hall containing nineteen columns about forty feet high. The pronaos has ten columns, three chambers and two shrines; one shrine is dedicated to Sebek and the other to Heru-ur or Aroueris. The temple measures about 500 feet by 250 feet, and stands at a height of about forty feet above the level of the Nile during its low season. By the side which fronted the river there originally stood a propylon and a small temple dedicated by Domitian; on the right of this stood the *mammisi*. To protect the remains of the temple from the inundation of the Nile, M. de Morgan has built a huge dam of the waste stones and materials which he has found in the course of his work. The bas-reliefs upon the walls and columns are exceedingly fine, and the delicacy of the colors and the fineness of the workmanship are equal, if not superior, to the art displayed at Edfu and Philæ. The inscriptions, although of a religious character, are of considerable interest, and among them may be mentioned (1) the dedicatory address of Ptolemy VII, (2) the calendar of the festivals, (3) ephemerides with the names of the deities who preside over the days of the year, (4) and the texts referring to the geography of the nomes. The remains at Kom Ombo promise to be as interesting as any of the Graeco-Roman period in Egypt.—*Athen.*, May 6.

SAKKARA.—M. de Morgan has been working this summer at Sakara, and has discovered the largest *mastaba* tomb yet known. He reports having already cleared sixteen chambers and passages, covered with scenes, some sculptured, others painted. This will be opened to the public next winter.—*Acad.*, Sept. 2.

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SEHEIL.—THE FAMINE STELE.—Prof. Sayce reads the name of the king on the famous *famine stèle* discovered by Mr. Wilbour (*JOURNAL*, vi, p. 328) at Aktisanes. This king is mentioned in Diodoros (I. 60), who states that he overthrew the Egyptian King Amasis or Armais, who reigned from 206 to 200 b. c. No one who has seen the inscriptions of the Ethiopian Kings Ergamenes and Azakhar-Amon, at Dakkeh and Dedod, can have any doubt that the inscription of Sehél belongs to the same age and style as they do; and their age is fixed by the fact that these two Ethiopian kings have borrowed, in their cartouches, the title of Ptolemy IV. Moreover, the inscription of Sehél is made to face Nubia instead of Egypt; and, as Mr. Wilbour has pointed out to me, "the *Kherheb*, Im-hotep, the son of Ptah," occupies the same place in the Sehél text that he does in those of Ergamenes and Azakhar-Amon. I should add that when I was at Debod the other day I found the name of Imouthis, or Im-hotep, written in Greek letters of the second century b. c., on the back of the temple. It was engraved in the centre of the external wall, and was the only inscription (Arabic graffiti apart) which is to be seen there. If the King of the Sehél-stèle is Aktisanes, not only will the hitherto mysterious text of Diodoroś be explained, but the historical character of the Sehél monument will also be vindicated. The eighteenth year of the king's reign, in which it is dated, would naturally refer to his reign over Nubia rather than over Egypt.—*Athen.*, Feb. 25.

WADY-HALFA.—Capt. Lyons, R.E., writes: "The more northern of the two temples on the west bank of the Nile at Wady Halfa, just north of the second cataract, was apparently built in the reign of Usertesen I, and in the xviiith dynasty Thothmes IV added a small fore-court with sandstone pillars. When excavating a part of this temple in the summer of 1892, I found, in the naos between the back wall and the altar, a part of a large *stèle* of the time of Usertesen I. The lithological character of the sandstone, the dimensions of the *stèle*, and the form of the hieroglyphs so strongly recalled that found by Rossellini and Champollion at this same spot in the first half of the century, that I sent the *stèle* to Prof. Schiaparelli, of the Royal Egyptian Museum at Florence, who has confirmed my supposition. This newly found portion contains two or three horizontal lines, completing that portion of the inscription. (Brugsch's 'Egypt,' vol. i, p. 159, second edition.) The remainder is in vertical columns, and contains the titles and appointments of a high dignitary, Mentu-hotep by name. This portion of the *stèle* is much damaged, and from 15 to 35 centimètres are still wanting at the bottom. It is dated the eighth day of the first month of the eighteenth year of the king, when the districts

of Kas, Shemik, Chasaa, Shaati, Akerkin, &c., had been subdued by Egypt."—*Athen.*, Aug. 19.

ABYSSINIA.

EXPLORATION BY MR. BENT.—The August number of the *Geographical Journal* (Edward Stanford) contains a paper by Mr. J. Theodore Bent, containing the first fruits of his recent archaeological visit to Abyssinia. Starting from Zula, the ancient Adulis, on the Red Sea, about twenty miles south of Massawa, he followed the old trade route to Axum. On the way he identified the sites of Koloe and Ava, which are mentioned by the Greek geographers. At Koloe there are only ruins of the Greek period; but at Ava (now Yeha) Mr. Bent was fortunate enough to discover seven Himyaritic inscriptions of the best period of Sabæan work, which have been sent for decipherment to Prof. D. H. Müller, of Vienna. He also brought back impressions of three Himyaritic inscriptions at Axum, of later date. The architectural character of the ruins at the two places is similar, though here again Ava is the earlier. At both is found the rude stone monument of Arabia (the *bethel* or *baetyle* of the Phœnicians) in all its stages, from the unhewn rock to the highly-decorated monolith, leading up by numerous studies to the emblematic home of the great sun-god. At the base of the monoliths are altars, which were evidently used for sacrifice. Prof. Müller reads one of the inscriptions from Ava as "His house Awa," and connects it with the worship of Baal-awa, which is common in Southern Arabia.—*Academy*, Aug. 19.

Before going to press we learn that Mr. Bent's volume describing his journey in full has been published.

CENTRAL AFRICA.

ZIMBABWE.—Mr. Swan writes from Vryburg, Bechuanaland, on May 28, 1893: "A reviewer, reviewing 'The Ruined Cities of Mashonaland' in the April number of the *Edinburgh Review*, . . . states that I see in the ruins 'the remains of temples of Phœnician star-worshippers,' although I have not once mentioned the Phœnicians in the book which he reviews, and although I have stated that I regard the temples as probably of Arabian origin. He also says 'that esoteric architecture is a modern craze.' . . . I presume that the reviewer means esoteric symbolism in architecture, and it is very easy to show that this is extremely ancient, and that it was employed at a very early period; for almost all, if not all, buildings which are temples connected with any long-established religious faith, embody some esoteric symbolism in their construction, and the altars and many

other features in our English churches have an esoteric meaning. Perhaps the reviewer has not heard of those early Brahminical books, the 'Sulyasutras,' which were written long before our era. In these are described the geometrical methods employed in constructing the plans of early Hindu temples, and in fixing the point where the sacred fire should be placed. These books alone afford conclusive evidence that esoteric symbolism in architecture is not merely modern.

"I also take exception to the remarks 'that the astronomical observations of early races were rude and simple; that the standards of ancient measurement, linear or angular, were as a rule extremely imperfect'; for, in the first place, we can hardly call an observation *rude* which oriented the Pyramids true north to within an error of four minutes and thirty-five seconds of arc (*v. Flinders Petrie's 'Pyramids and Temples of Gizeh'*); and the degree of accuracy of the Chinese observations of the meridian altitude of the sun at the solstices, which were made at Loyang about 1100 b. c., does not indicate rough angular measurement (*v. letters published by Laplace in the Connaissance des Temps, 1809*); while the wonderful persistence in nearly uniform length of the Egyptian cubic for long periods of time shows the careful attention paid by the ancients to standards of linear measure.

"The statement in the article that the figures on the fragment of a bowl are like Bushman drawings in style, and that it is a libel on the Phoenicians to suppose that they would have produced such work; for these figures are in a style utterly unlike any Bushman drawings which I have seen, and I have seen many, and there is no difficulty in finding many pieces of Phoenician work which are very similar to the carving on the bowl. The supposition that the great temple was a fortress, and the great tower its watch-tower, is absurd to any one who has seen Zimbabwe; besides, if the great tower was a watch-tower, what was the use of the little one? I will only add that the idea that these temples were built at a period subsequent to the Christian era is utterly unsupported by valid evidence." — *Athenæum*, June 24.

Messrs. Longman are going to bring out a second edition of Mr. Bent's "Ruined Cities of Mashonaland," which will contain an appendix by the Secretary of the Chartered Company describing the progress made in opening up Mashonaland since Mr. Bent's departure. As to the ruins, Mr. Boscawen and Prof. D. H. Müller, of Vienna, have furnished Mr. Bent with some suggestions that will be incorporated in the preface. Messrs. Longman will issue later on in the

autumn an illustrated volume containing a narrative of Mr. and Mrs. Bent's recent visit to Axum, the sacred city of the blameless Ethiopians.—*Athenæum*, July 22.

ALGERIA.

EXPLORATION NORTH OF AÏN-ZANA.—M. Graillot, member of the French School at Rome, assisted by M. Gsell, a former member of the school, has begun an archaeological exploration in the district to the north of Ain-Zana (Algeria).—*Rev. Arch.*, July-Aug., 1893, p. 106.

CATALOGUE OF MUSEUMS OF LAMBESA.—Mr. R. Cagnat, member of the Comité des Travaux Historiques, Professor in the Collège de France, has been charged with a mission to Algeria in order to draw up the catalogue for the collections in the museums of Lambesa.—*Chron. des Arts*, 1893, No. 11.

TUNISIA.

EARLY CHRISTIAN ANTIQUITIES.—In the year 1888 several "Backsteinfliesen" or brick flooring tiles were discovered at Tunis, says the *Vössische Zeitung*, ornamented with rosettes, stags, lions, peacocks, oxen and various heathen and Christian emblems. The same paper now reports the unearthing, by Lieut. Hanego, with the help of some other officers, of a further number with decorations which are exclusively Christian. They were found under the ruins of a basilica near Haadjeb-el-Hisun. They include representations of Adam and Eve, with a tree between them, round which the serpent is coiled; Christ between two apostles, one holding bread, the other a wine-cup (the head of each of the three is surrounded by a nimbus); Abraham's sacrifice; and Christ talking with the woman of Samaria (the Saviour holds a tall cross). Their exact age is hard to determine. M. le Blant, the learned archæologist, is inclined to attribute them to the sixth century. The floor of the basilica exhibits a beautiful mosaic, representing doves drinking from a brook.—*Athen.*, Aug. 19.

TUNISIAN TATTOOING AND ANCIENT WORSHIP.—At the meeting of the *Acad. des Inscr.*, April 23, M. Phillippe Berger finished his communication on Tunisian tattooing, examples of which had been furnished by Dr. Vercoutre. Dr. Vercoutre had recognized as the most frequent subject the symbol of an ancient divinity, whose significance has been lost but whose type is reproduced in the traditional manner. This figure appears to be the conical image of the goddess Tanit, so common on Punic monuments. M. Berger placed before the eyes of his associates a certain number of these tattooings and noted their variations; he showed the primitive figure, sometimes reduced to a

fleur-de-lis or a cross, and again developed into an ornament of more or less capricious character. Even in ancient times the image of Tanit had undergone analogous modifications, which to a certain extent explain the variations of the form in the tattooing on the arms and legs of the modern Tunisians.—*Rev. Arch.*, July–Aug., 1893, pp. 106–107.

CARTHAGE.—EARLY PUNIC TOMBS.—At the meeting of the *Acad. des Inscr.*, May 26, 1893, a letter from Father Delattre was read concerning his discoveries in Carthage. Punic tombs of the earliest settlement have been found, and a ditch which contained pottery and coins of the III century B. C. This discovery limits still further the ancient site. Father Delattre concludes that the town was originally near the sea and did not extend beyond the hills which surround the plain. At the Roman period the town increased in size, embraced the hills, and buried beneath its constructions the Punic necropolis which today is found beneath Roman and Byzantine ruins.—*Rev. Arch.*, July–Aug., 1893, p. 111.

ASIA.

HINDUSTAN.

SOUTH INDIAN INSCRIPTIONS.—Part II. of the second volume of *South Indian Inscriptions*, edited by Dr. E. Hultzsch, epigraphist to the Madras Government, has been published. It contains the text and translation of a large number of Tamil inscriptions in the great temple of Tanjore. Most of them merely record the gift of images or offerings, the usual form being to recite that a sum of money has been lent to a village community, who are bound to pay interest in perpetuity at the rate of 12½ per cent. Some of the inscriptions are historically valuable, as supplying dynastic names, or as indicating the date of certain works of Tamil literature. The part is illustrated with facsimiles and with two photographs of the temple.—*Acad.*, Oct. 28.

THE INSCRIPTIONS ON THE SANCHI STUPAS.—Dr. Bühler writes: "In No. x of the *Epigraphia Indica* I gave transcripts of 144 votive inscriptions from the two great Stupas at Sanchi according to impressions taken by Drs. Burgess and Führer, among which 104 are identical with documents already published by Sir A. Cunningham in his work on the *Bhilsa Topes*, and forty are new. During his late cold weather tour, Dr. Führer again visited Sanchi, in order to look for the 137 missing pieces of Sir A. Cunningham's collection, and to see if excavation of the ground around the Stupas would yield any more novelties. His success has been very remarkable. He has recovered

almost all those published in the *Bhilsa Topes*, and he has found a large number of hitherto unknown ones. The total of the inscriptions from Stupa No. I now amounts to nearly 400, among which 378 are legible, against 198 in Sir A. Cunningham's book; and Stupa No. II has yielded, instead of 43, nearly 100, among which 78 are legible. In addition, some statues of Buddha, with very interesting dedications, have come to light during the excavations. Most important of all is the recovery of the fragment of Aśoka's Edict, of which Sir A. Cunningham has already given two fac-similes. Dr. Führer's impressions confirm my conjectural restorations of the last lines, published in the *Epigraphia Indica* No. X, and they prove that the piece is the lower end of a larger inscription. It appears that the first words are not *devānām piye*, as they have been read formerly. The end of the first line extant and the second line contain the valuable statement that "a road or path was made for the *Saṅgha*, both for monks and nuns," which assertion agrees with the wish expressed in the last line, "that the road of the *Saṅgha* may be of long duration." It now becomes probable that the Stupa No. I existed before Aśoka's time, and that the king made it accessible to the faithful, and took care to have them fed properly by his officials during their visits.

"Two other documents, one new and one given in part by Sir A. Cunningham, contain imprecations against the impious despoiler of the Stupa, "who takes away from this *Kākāndra* be it a rail or an ornamental arch, or transfers them to another building, sacred to the Teacher (*dchariyakulam*)."¹ Such an offender is to incur the punishment of parricides, of murderers of Arhats and of spiritual teachers. The characters of these inscriptions differ but very little from those of Aśoka's Edicts, and probably belong to the beginning of the II century B. C. The railing and the gates of the Stupa seem, therefore, to have been completed about this time, as I have shown on other evidence in my former article.

"Another interesting novelty is an inscription of the Indo-Scythic period on the base of a statue of Buddha, which is dated in the year 78 of the "great king, king of kings, and son of the gods, *Shahi Vdsushka*." The first numeral figure is mutilated, and I owe its correct interpretation to the kindness of Sir A. Cunningham. *Vāsushka* seems to be a vicarious name for *Vdsudeva*, the third Indo-Scythic or *Kushana* king, whom Kalhana calls *Jushka*.

"Finally, there is another statue which bears an inscription, a single verse in the *Sragdharā* metre, exhibiting the *Nagari* characters of the x or xi century A. D. Here we have further proof that Buddhism was not annihilated in the viii century A. D. by the persecution of the

Brahmans, but continued to exist much longer, until it died a natural death, its followers being absorbed by the still more easy-going Vaishnavas, who centuries before had declared Sakyamuni Gautama to be one of the incarnations of their tutelary deity.

"It is a matter of course that the new inscriptions yield a very large number of names of persons and places, as well as other interesting information. Transcripts of the whole collection have been prepared for the *Epigraphia Indica*, where details will be given."—*Acad.*, June 17.

ARCHÆOLOGICAL SURVEY OF THE NORTHWESTERN PROVINCES AND OUDH.—The Government of India has decreed that the archaeological survey of the North-Western Provinces and Oudh shall come to an end on October 1, 1895. However, Dr. Führer is making the best possible use of the allotted time. His printed Progress Report, recently issued by the local government, proves the doing of much good work, and promises the speedy performance of much work equally good.

Fathpur Sikri.—Mr. E. W. Smith, the architectural draughtsman attached to the Survey, has been busily engaged on detailed drawings of Akbar's city of Fathpur Sikri, which the Lieutenant-Governor hopes to publish in one or more volumes on the early architecture of the Moghuls. Such volumes are badly wanted.

Mathurā.—A monograph on the excavations at the Kankali Tīlā at Mathurā is ready for the press, and promises to be of the highest interest and value. The book will, Dr. Führer tells me, be printed in royal quarto, and illustrated with about 110 plates.

A letter from Dr. Führer contains an appeal for assistance in continuing the researches at Mathurā which are throwing so much light on the development of Hinduism, Buddhism and Jainism: "I should very much like," he writes, "to take up the Keśava mound at Mathurā, if sufficient funds could be obtained. Do you think that an appeal in the *Academy* would be of some help? I am convinced that the Keśava mound hides Vaishnava relics of more ancient date than those found in the Kankali Tīlā."

Rāmnagar.—The partial exploration of the ruined city of Rāmnagar, in the Bareli district, has yielded some surprising results. Sir Alexander Cunningham long ago correctly identified the ruins at Rāmnagar with the city of Ahichchhatra, the 'Αἵσσαδπα of Ptolemy. Dr. Führer has now found inscriptions which show that the correct Sanskrit form of the name is Adhichchhatra. He has also made the extremely important discovery of "a large two-storied Saiva temple, built of carved brick, and dating from the first century B. C." This is very much the

earliest brick temple known to exist in Northern India, and its discovery is "a link in the chain of evidence which enables us to trace the existence, nay, the prevalence, of Vaishnavism and Saivism, not only during the second and first centuries B. C., but during much earlier times, and to give a firm support to the view now held by a number of Orientalists, according to which Vaishnavism and Saivism are older than Buddhism or Jainism." The coins found in this temple are considered to range in date from about 178 to 66 B. C. In the same city Dr. Führer exposed a Jain temple of the early Indo-Scythic period, with statues dated from 96 to 152 A. D., and a Buddhist monastery called Mihiravihāra, dating from the middle of the first century

A. D.

Saharanpur.—Mr. Rodgers lately sent a unique specimen, obtained at Saharanpur, of a new type of the copper coinage of Kumāra Gupta I, which has hitherto been known only from the unique coin of the Standing King type in the Bodleian cabinet.—V. A. SMITH, in *Acad.*, Aug. 5.

THE PILLAR EDICTS OF ASOKA.—The last part of *Epigraphia Indica* contains a valuable paper, by Prof. Bühler, on "The Pillar Edicts of Asoka." It is based throughout upon impressions from the originals, three of which are now published in facsimile for the first time. These edicts are seven in number, several of which are repeated on more than one pillar. Prof. Bühler here prints the texts of each, in Roman transliteration, giving the several versions in parallel columns, together with an English rendering and copious notes. With regard to the three inscriptions now published in facsimile for the first time—those of Radhia, Mathia, and Rampurva—Prof. Bühler insists upon a point of great palaeographical importance, which he extends also to the two Delhi inscriptions. In each case he maintains that the verbal discrepancies are so slight that they cannot be ascribed to different draughtsmen; in other words, that the copies were made from a common MS. This agreement extends to the joining of words by hyphens, and to the separation of words by intervals. The joining of words implies that they are to be construed together, while the intervals are to be regarded as marks of punctuation. From these principles, Prof. Bühler draws rules as to the permissibility of certain proposed interpretations. He further lays down some other principles, which have guided him in dissenting from his predecessors. First, he refuses to admit any conjectural emendations which involve the alteration of the text contained in more than one version, preferring to extract a meaning from the actual readings. Secondly, he argues that a full elucidation of Asoka's edicts can only be accomplished with the help

of Brahmanical literature (such as the *Rajaniti*), and by a comparison of existing Hindu customs. Thirdly, he believes it certain that Asoka had not become a Buddhist at the time when the pillar edicts were engraved. Up to the close of the twenty-seventh year of his reign, Asoka continued to preach the spread of that general morality which all Indian religions, based on the Path of Knowledge, prescribe for the people, and which is common to Brahmans, Jains, and Buddhists. This Prof. Bühler hopes to prove hereafter, in a discussion of the rock edicts.—*Acad.*, Oct. 28.

NEW ASOKA INSCRIPTIONS.—Mr. Burgess writes: “It will interest all Sanskrit scholars to learn that a new inscribed pillar or Lát has been discovered in the Nepal Tarai; which, besides the seven well-known Asoka Edicts found on the other Láts, is said to bear two new ones. It was found by Major Jaskaran Singh, a relative of the late Mahárája of Balrampur, who made an eye copy of the whole. Dr. Führer, the energetic superintendent of the Archaeological Survey in the North Western Provinces, will doubtless endeavor to secure impressions. He communicates a note on the discovery to the *Pioneer* of Sept. 15.”—*Acad.*, Oct. 14.

EARLY COINAGE OF NORTHERN INDIA.—At the March meeting of the Numismatic Society, Mr. E. J. Rapson read a paper “On the Earliest Currencies of Northern India.” He pointed out that Sir A. Cunningham’s recent work, “The Coins of Ancient India,” supplies an amount of new information of great importance for the scientific classification of these coins. They fall naturally into two main divisions—pre-Greek and post-Greek. The indigenous pre-Greek coinage must have been firmly established for some considerable time. Its influence was sufficiently strong to modify the subsequent Greek coinages of the Kabul Valley and Northern India in two important respects—shape and weight-standard. On the other hand, coin-types as distinguished from punch-marks were very probably borrowed from the Greeks. There seems to be no reason for dating any Indian coin bearing a type before Alexander’s conquest, though undoubtedly a square coinage of some description did exist before that time. With regard to the earlier post-Greek native coinages, Mr. Rapson showed that the signs of Greek influence in them often enabled us to determine their chronological sequence. Relying to a great extent on arguments derived from this source, he suggested a chronological arrangement of the coinages of Taxila, Mashura, and other native states.—*Athen.*, March 25.

THE CURRENCIES OF THE HINDU STATES OF RAJPUTANA.—William W. Webb’s book with this title appears to be the first book that has

been published about the coins of the Native States in India. The whole subject, indeed, is involved in the utmost obscurity. No official information seems to be available as to how many chiefs possess this attribute of sovereignty, and how many actually exercise the right. In Rajputana alone sixteen States now coin silver and five of them also gold. Only one State, that of Alwar, has consented to allow its rupees to be made of the British standard and at the Calcutta mint. These bear—on the obverse, the head of the Queen, with the words "Victoria Empress" in English; and on the reverse the name of the reigning chief, with the date *anno domini*, in Persian characters, and round the border, "One Rupee, Alwar State," also in English, with the national emblem of a *jhar* or branch twice repeated. Elsewhere the coins are all struck, or rather hammered, by hand, according to the method that prevailed in England down to the reign of Elizabeth; and as the die is much larger than the coin, only part of the inscription is usually to be read on each piece. Despite traditional claims to greater antiquity, it seems to be historically ascertained that no rajput coinage goes back beyond the decadence of the Mughal Empire; in fact, to the very period when the East India Company first acquired the right to set up a mint at Calcutta. Were other evidence for this wanting, it might be inferred from the fact that the early inscriptions are always in the name of the Mughal emperors, as were those on the English sikka rupees. It is interesting to know that Persian has so long survived on the coins of Northern India, just as Greek did on the coins of the Indo-Scythic kings, and as Latin does in this country to the present day. Coins are the most conservative things in existence: hence their interest from the historical point of view, as has been so ably pointed out by Mr. C. F. Keary. Most of the chiefs of Rajputana now place the Queen's name on their money, though still in Persian characters. From an archaeological point of view, most interest attaches to the old currency of Udaipur or Mewar. One tradition would assign to its chiefs a Persian origin; and this would seem to be supported by the large number of coins of the Indo-Sassanian type still to be found in the country. Indeed, copper pieces of this archaic type, in a very debased form, are still current in the bazaars; and Dr. Webb gives reasons for believing that one of the copper coins issued to this day at the Udaipur mint is descended from the same stock. There is another interesting series of silver coins in Udaipur, bearing no inscription whatever. The same die is used for all pieces, from the rupee to the one anna. As regards Jodhpur or Marwar, the second State in Rajputana, the historical connection of the ruling family with the valley of the Ganges is attested by the

number of coins of the Kanauj type which are still in circulation.—*Acad.*, Sept. 23.

RECENT FINDS OF COINS.—A recent number of the *Proceedings* of the Asiatic Society of Bengal contains reports by the philological secretary (Dr. A. F. R. Hoernle), upon twelve finds of old coins in Northern India, under the Treasure Trove Act. In almost all cases, the coins were of no particular rarity. We may, however, mention one find, near Delhi, of no less than 320 gold mohurs of Akbar, Jahangir, Shah-jahan and Aurangzeb, which were forfeited to Government because the finders had attempted to conceal their discovery. From the numismatic point of view, the most important lot is a number of silver coins which came to light after a landslip in the district of Kangra. Of these twenty-one were pieces of the so-called Bactrian king, Apollodotus II, who reigned in the Punjab about 150 b. c. Four varieties are represented, all of which are to be found in the British Museum. The others, fifty-four in number, belong to the *kuninda* class of King Amoghabuti, who ruled in the hill districts on both sides of the Satlej at about the same time. Here there are three varieties, one of which—bearing a *svastika* beneath the legs of a deer—seems to be unpublished. The others have been described and figured by Sir Alexander Cunningham.—*Acad.*, July 29.

In a subsequent number of the same *Proceedings*, Dr. Hoernle reports on the following finds of treasure trove coins: A collection of 183 copper coins, found in Chanda District of the Central Provinces, of the early kings of the Andhra dynasty (78-170 a. d.). They bear on the obverse an elephant with a rider, and the name of the king in ancient Nagari characters; and on the reverse four balls joined by lines crosswise, the well-known symbol of Ujain. A collection of 52 coins—one gold, the others of mixed metal—found in Sarangarh State of the Central Provinces, of the Kalachuri dynasty of Chedi (1090-1170 a. d.). They bear on the obverse a standing figure of Hanuman, and on the reverse the name of the king in large Nagari characters—in both cases enclosed within a marginal circle of dots. Coins of this dynasty are exceedingly rare, and all those known hitherto bear the four-armed goddess Durga. The present find not only includes coins of two kings before unrepresented, but also shows that the figure of Hanuman was imitated by the Chandel kings from the Kalachuri dynasty. Dr. Hoernle further comments upon two rare gold Gupta coins, added by Mr. Rivett-Carnac to his collection recently purchased by the Indian Government: one a specimen of the “swordsman” type of Kumara Gupta I, of which only two more are known to exist—in the British Museum and the Bodleian; the

other a specimen of the "umbrella" type of Chandra Gupta II, of which seven more are known. Both of these have a gold loop soldered to the rim, showing that they were once worn as amulets or ornaments.

ARCHÆOLOGICAL TOUR IN BURMAH.—The index number of the *Indian Antiquary* for 1892, which has just been published, contains an illustrated article by Taw Sein-Ko, giving an account of an archæological tour through the Talaing country of Burmah. His main object was to report upon the sculptured caves, the pagodas, the inscriptions and other antiquities of this region; but he also gives some interesting information about the people and their language. Mun or Talaing is still a spoken language, though rapidly disappearing before Burmese. It is taught in the monastic schools, but not in those which receive aid from the government. Not only are there many inscriptions in Talaing, but also a large mass of literature in MS., which has never been studied by scholars. There is said to be a fine collection in the royal library at Bangkok, for the country was under Siamese rule in the XIV century. The language of the Taungthus, or highlanders, though it has borrowed largely from the Shans, seems to have natural affinity with Burmese. It also possesses a literature of its own, written in a character resembling that of Talaing. The general result of Taw Sein-Ko's researches is to suggest a closer connection between Burmah and India than has hitherto been admitted. Some of the smaller objects of antiquity discovered by him are now in the British Museum. Among them is a terracotta tablet bearing a Sanskrit inscription, exactly similar to other tablets which have come from Buddha Gaya.—*Acad.*, Sept. 23.

PHœNICIAN ORIGIN OF PRIMITIVE TOMBS.—The annual report of the Indian surveys for 1891–92 contains some matter of archæological interest, in an appendix by Colonel Holdich on the history and ethnography of Makran, or Southern Baluchistan. From Mr. Theodore Bent's researches in the Persian Gulf, and his identification of the Bahrain Islands with the early home of the Phœnicians, Colonel Holdich is inclined to seek a Phœnician origin for the remarkable *dams*, or rough stone-built tombs, which exist in many parts of the country. He also states that the *ghorbastas*, or great stone embankments, show the same skill in uncemented masonry as the walls of Zimbabwe; while around the cities of Tiz and Pasni are to be found the same extraordinary wealth of relics in celadon, china and Persian pottery as are described by Mr. Bent among the African ruins.—*Acad.*, Aug. 5.

THE BUDDHIST WHEEL OF LIFE.—The latest issue of the *Journal of the Asiatic Society of Bengal* for 1892 contains a paper on "The Buddhist Pictorial Wheel of Life," by Mr. L. A. Waddell, to whom we have been previously indebted for other interesting contributions on Buddhist archaeology and modern Tibetan usages. The wheel of life, or cycle of existence (in Tibetan, Sid-pa-i Khor-lo; in Sanskrit, Bhavachakra), is one of the most familiar frescoes that adorn the interior of Lamaic temples, though apparently it has never been adequately described by European scholars. It depicts, in symbolical and realistic form, the fundamental doctrine of metempsychosis, which is not known to appear on the Buddhist sculptures of India. But Mr. Waddell here claims to have identified it on one of the cave paintings of Ajanta, hitherto thought to represent a zodiac. Of this, which is now sadly mutilated, he gives a photograph; as also a photograph of the common Tibetan picture, together with an explanatory diagram. The picture is sometimes on so large a scale as fifteen feet in diameter, and it forms the daily texts of sermons by Lamas to the laity. Its object is to present the causes of re-birth in so vivid a form that they can be readily perceived and overcome. "It consists of a large disc, with two concentric circles, the circular form symbolizing the ceaseless round of wordly existence. The disc is held in the clutches of a monster, who typifies the passionate clinging of wordly people to wordly matter. In the centre are symbolized the three Original Sins, and round the margin is the twelve-linked chain of Causes of Re-birth, while the remainder of the disc is divided by radii into six compartments representing the six regions of re-birth.... In the upper part of the region representing hell is the Bardo, or state intermediate between death and the great judgment. Outside the disc, in the upper right hand corner, is a figure of Buddha pointing to the moon [with a hare in it]; and in the left hand corner a figure of Chenresi [Sanskrit Avalokita], the patron god of Tibet, incarnated in the Dalai Lama." Mr. Waddell goes on to give, from the traditional explanation of the Lamas, a full explanation of the symbolical meaning of all the objects figured, which, as he says, must prove valuable to students of Buddhist philosophy. It is certainly curious reading, when compared with the newly-discovered Apocalypse of Peter and also with the Book of Enoch. It must suffice to say that he seems to have been successful in identifying nine out of the twelve Causes of Re-birth with portions of the Ajanta picture. In the centre of this latter he would find illustrations of some of the more celebrated of the mythical former births of Buddha himself, as contained in the Jātaka tales.—*Acad.*, March 25.

PABHOSA (NEAR).—**EARLY INSCRIPTIONS.**—The last number of *Epigraphia Indica* contains the conclusion of Dr. A. Führer's account of several early inscriptions recently found by him in a Buddhist cave near Pabhosa, some of which may go back to the 11 century B. C.; also a fresh edition, from a more complete impression, of an inscription previously edited by Prof. Buhler; and a number of modern Mohammedan inscriptions from Behar, edited by Dr. Paul Horn.—*Acad.*, Oct. 28.

TIBET.

EXPLORATION OF TIBET.—We condense from Part II. of the *Journal* of the Buddhist Text Society of India the following report of a speech delivered by Sri Sarat Chandra Das at the first general meeting of the society :

“ During my residence in Tibet in the years 1879, 1881 and 1882, I had the honor of being the guest of the chief spiritual minister and tutor of the Grand Lama of Tashi-lhunpo. It was at his invitation that I visited Tibet. The principal objects of my journey were: (1) To investigate the literature of Tibet, both sacred and secular; and (2) to explore the unknown parts of the country hitherto considered as *terra incognita* by geographers. The country lying on the north of the Himalayas, east of Ladak and west of the province of Tsan—including Lake Manasarovara, the Kailas mountains (the glaciers of which form the head-waters of the Indus, the Sutlej and the Brahmaputra or Tsangpo), and the great lake called Nam-tsho or Tengri Nor—were explored by the late Pandit Nain Singh. The country known as Northern Tibet, including Amdo—situated to the south of the great desert of Kobi, and north of Lake Tengri Nor—was explored by the late General Prejevalsky. Eastern Tibet, including Kham and Bathang, and extending to the confines of China, was first explored by Pandit Krishna Singh, and lately by Mr. Rockhill, secretary to the American Legation at Peking. But although these eminent persons had explored the outlying provinces of the country and made considerable additions to geography, yet Tibet proper, containing the great provinces of U'Tsan and Lhobra, remained yet unexplored. In the course of my travels I explored the first, together with that most interesting lake called Yamdo or Palti, in a scientific manner. My companion and friend, Lama Ugyan Gya-tsho, explored the province of Lhobra six months after my return from Tibet.]

“ The minister possessed the largest collection of Sanskrit and Tibetan works of all kinds of any private gentleman in U'Tsan, though inferior to the principal university libraries of the country. The state library of Tashi-lhunpo, located in the Grand Lama's residence, is one

of the largest in Tibet. But as no one was allowed to enter the sanctum except for the purpose of paying reverence to the Grand Lama, I did not venture to visit his library. But I did visit the ancient libraries of Sakya, Sam-ye and Lhasa, which are filled with original Sanskrit works brought from India. The library of Sakya is a lofty, four-storeyed stone building of great size, erected about the middle of the XII century. It was there that the monumental work of Kshemendra, called *Kalpalata*, was translated into Tibetan verse by order of Phagspa, the grand hierarch who converted the Emperor Khublai to Buddhism. I visited the great monastery of Sam-ye, which was built in the beginning of the VIII century, after the model of the Odanta Puri Vihara in Magadha. The library, when I saw it, contained comparatively few books. But I was told that the largest collection of Sanskrit books in Tibet existed here down to eighty years ago, when the library was destroyed by an accidental fire. The library of the Dalai Lima at Lhasa is now considered the largest of all. It was there that I obtained Kshemendra's *Kalpalata*.

"The Tibetans derived their alphabet as well as their literature from India. The form of Nagari used in Magadha during the VII and VIII centuries A. D. bears a striking resemblance to the Tibetan alphabet. Nagari has undergone considerable changes; but the Tibetan characters have remained fixed from the time of their introduction until now, owing to the use of the stereotype block in printing since the beginning of the IX century. In India printing was unknown until the arrival of the English: hence the various phases noticeable in Nagari.

"Two forms of character, differing very slightly from each other, have been in use in Tibet: one is called the U-chan (that is, with the head-line or *matra*); and the other U-me (without the head-line). The latter form is used in business, correspondence, &c.; the former in printing and in preparing MSS. for books. It is very curious that running hand, which is an outcome of the U-me, has not undergone much change in course of time.

"The Tibetans translated all the Sanskrit works they could obtain from India and Nepal into their own language, and thereby enriched it. Upon these they founded their own literature, which, as translated works increased, grew richer and more comprehensive. During the XIV, XV and XVI centuries, when Buddhism became extinct in India, the literary activity of the Tibetans received a fresh impulse from the Chinese, under the dynasties of the great Khan and the Ming Emperors. During this period Chinese Buddhist works were largely translated into Tibetan. In this manner the capability of the

language to express foreign terms and ideas became enlarged and its literature abundant. The Tibetans borrowed from China what they had not been able to obtain from India.

"The wise policy of getting every foreign book translated into Tibetan, first initiated by King Srong-tsan in the beginning of the VII century, was followed by his successors down to Ralpa-chan, and also by the successive Lamaic hierarchies which ruled over Tibet. With the translation of the works of the Indian saints, their spirits also had been transferred into the country of Himavat; hence we now find so many incarnations of Indian Pandits at the head of the great monasteries. It is a noteworthy fact that in the chief Lamasarais, biographies of many illustrious Indian Buddhists may be found stereotyped on wooden blocks. The Tibetans are very fond of recording the events connected with their lives. In the grand monasteries presided over by incarnate or erudite Lamas, the duty of writing the diary about the Superior (Lama) is entrusted to a learned monk. After the death of the Lama, his biography is compiled from this diary. It is owing to this that printed biographies of the Lamas of the chief monasteries can be had in the bookstalls of every market in Tibet. It is mentioned in the historical and legendary books of Tibet that most of the Lamas, who now appear there as incarnate beings, formerly belonged to India, and particularly to Bengal. Owing to this, the name of Bengal is revered all over Tibet and Mongolia."—*Acad.*, Sept. 9.

CHINA.

CHALDEAN AND EGYPTIAN TREES ON CHINESE SCULPTURES.—M. Terrien de Lacouperie writes: "The foreign notion of the calendar tree was current in Eastern China at the time of Leihtze, 400 b. c., if not before, . . . this fabulous conception was part of the foreign notions and ideas which were introduced by the traders of the Erythrean Sea, in the emporia of Shantung (680-375 b. c.), described at length in our researches on *The Western Sources of the Early Chinese Civilization*. . . . A recent work, splendidly illustrated, on *La sculpture sur pierre en Chine au temps des deux dynasties Han*, by Mr. Ed. Chavannes of Peking, gives us the opportunity of returning to the subject, because it involves a most interesting question in the history of Chinese art. The principal sculptures are those of a funeral monument erected in 147 a. d. by the *Wa* family in Kiasianghien of South Shantung province. . . . Not only the calendar plant, but four other figures of different sorts of wonderful trees that occur on these sculptures." (1) On Pl. xviii is the calendar plant with its fifteen pods, and near

it a man with his hand raised to the tree—a scene reminding of the Assyrian tree of life and its genius. (2) On the same plate an exotic plant with crooked stem and six offshoots or leaves. (3) Pl. viia and xviii. The tree for friendliness; a much intertwined plant. (4) Pl. xviii, 2. A conventional representation, doubled, of the date palm-tree as represented on the Assyro-Babylonian cylinders. The resemblance is so complete that it cannot be doubted that the original came from the Persian gulf. (5) Pl. v, 2; x, 1; xx, 1. A large fanciful tree, called *Hoh-hwan*. The sculpture represents a combination of the Egyptian lotos pattern with another tree, which seems to be the Egyptian Persea. Three among these five—the calendar plant, the date-palm tree, and the lotos and Persea tree, are evidences of western influence over Chinese art. There are other evidences of this same fact. Such are: (1) The headgear from a special arrangement of the horns of a demon (pl. xxii: cf. Perrot, fig. 277); (2) the implement carried by a human figure (pl. i, 2: cf. Perrot, fig. 250); the Tomb-thumb star over the *Mizar* star of the Great Bear, which is unknown in Chinese uranography (pl. xxxii), etc.

It is evident that these resemblances are the result, not merely of oral communications to Chinese artists, but of personal acquaintance with foreign monuments, although the imitations are curiously distorted.—*Babylonian and Oriental Record*, June, 1893.

MONCOLIA.

A CHINESE INSCRIPTION FROM MONGOLIA.—Prof. Schlegel publishes in the *Journal of the Finno-Ougrienne Society of Helsingfors* an article entitled “La Stèle funéraire du Téghin Giogh, et ses Copistes et Traducteurs, Chinois, Russes, et Allemands.” The subject of it is the inscription on a monumental pillar or tablet erected by order of the Emperor Hsüan Tsung of the Thang dynasty of China in A. D. 782, in honor of the Prince Giogh, brother of the then chief or khan of a Turkish tribe, which occupied a considerable portion of what is now included in the general name of Mongolia, north of the Thien-shan mountain range. The tablet was discovered in 1890 by Prof. Heikel of the Helsingfors University, in the valley of the Orkhon, a tributary of the Selenga, which finally flows into Lake Baikal. There were many monuments in the valley, some in Chinese characters and some in Runic (?). This one of the Prince Giogh was, perhaps, the most striking of them; and Prof. Heikel carried back with him to Helsingfors several photographs of it. It is in twelve columns of Chinese characters, amounting with the title and date altogether to 425, which are mostly in good preservation, only three being obliterated, and ten

others blurred or mouldered. It must be considered one of the most interesting discoveries of our time, carrying us back nearly twelve centuries, and bringing us face to face with a well-known emperor and the tribes on his northern frontiers, and the soothing cajoleries by which their wild chiefs were kept in order. It is strange that so fine a monument should have escaped the notice, so far as we know, of Chinese antiquaries. The great collection of inscriptions published by Wang Ch'ang in 1805 contains more than 100 of the reign of Hsüan Tsung, but this important one from the valley of the Orkhon is not among them. It is not so much, however, to the monument itself as to the difficulties that have been found in the interpretation of the inscription that it is desired to call attention in this notice. The photographs of Prof. Heikel were naturally referred from Helsingfors to St. Petersburg, and what purported to be a correct copy of the inscription on them, but was not so, was procured from the Russian Mission at Peking, and a translation of this defective copy was made by a Sinologue at the Consulate of Ourga. Subsequently Prof. Heikel obtained another translation of his photographic copies from Prof. Georg v. d. Gabelenz, of Berlin. The Finno-Ougrienne Society published a superb volume, containing the original photographs, the copy of the inscription taken from them at Peking, and the Berlin translation, and presented it to Prof. Schlegel, who responded with a new translation, and this article, which has been republished by Mr. Brill, of Leyden.

Prof. Schlegel's description of the monument is conducted with the greatest pains and with much critical skill, and the general meaning of the inscription may be considered as finally determined. He has exposed the errors of the German translation with a bold decision, but not in a carping spirit. It may be possible to point out some flaws in his own version, and in his proposals to replace the blurred characters; but the scope of the record cannot be misapprehended again. The relations between the government of China and the rude tribes on the north, before what we call our "Middle Ages," stand out clear and distinct.—*Acad.*, Jan. 28.

ARABIA.

HUBER'S TRAVELS IN ARABIA.—*Journal d'un Voyage en Arabie, 1883-1884.* Par Charles Huber. (Paris: Leroux.) This large and handsome volume, well worthy of the traditions of the National Printing Press of France, possesses a melancholy interest. It is a careful publication by the Asiatic and Geographical Societies of Paris of the journal kept by the young and enthusiastic *savant* and explorer,

Charles Huber, up to the date of his murder between Jeddah and Medineh. The editors have confined themselves rigorously to the reproduction of his manuscript: the numerous inscriptions he copied have been printed without any attempt at correction or explanation, and the Arabic names and words he wrote down have also undergone no revision. But the volume has been enriched with very substantial additions at its end. These consist of numerous and elaborate maps, illustrating the journeys of M. Huber from Damascus and Palmyra in the north to the neighborhood of Mekka in the south. They increase materially our knowledge of the Arabian Peninsula, and, in connection with Mr. Doughty's travels, make it possible to understand not only what is the present condition of the northwestern part of the country, but also the position of the chief seats of its ancient culture. It is, however, from an epigraphic point of view that M. Huber's journal is so specially important. The scientific mission on which he was sent by the French Government had, as its first aim, the discovery and reproduction of the historical monuments of the past. That inscriptions existed in what is now a barren land inhabited for the most part by illiterate nomads was known, and Mr. Doughty's discoveries had shown that in the neighborhood of Teïma were numerous remains of antiquity. Among them is the famous stele of Tselem-shezib in the Aramaic language and alphabet, now in the Museum of the Louvre.

During a part of his second journey, M. Huber was accompanied by Prof. Euting, and the copies of the inscriptions contained in his journal seem to have been the joint work of the two travellers. The Aramaic texts found at Teïma and elsewhere have been already published in the *Corpus Inscriptionum Semiticarum*; and consequently, with a few exceptions, none are given in the present volume. The inscriptions it contains are partly Safaitic, partly Minæan, partly Proto-Arabic, partly Nabathean. The inscriptions of Safa were first deciphered by M. Halévy in 1877, and take their name from the volcanic region southeast of Damascus, on the rocks of which the majority of them are written.

The principal fact which strikes the reader of the Journal is the wide extent of country over which the epigraphic monuments of the past are spread. Before the rise of Mohammedanism, the population of Northwestern Arabia seems to have been as much addicted to writing as were the ancient Egyptians. Inscriptions are scratched almost everywhere on the rocks and boulders of the country; and as the writers were for the most part mere travellers or camel-drivers, a knowledge of the art of writing must have been widely diffused. The

alphabets employed by the scribes show that the stream of culture flowed from two opposite directions. On the one side it came from the Aramaeans of the north, on the other from the cultured and powerful kingdoms of the south. Indeed, there was a time when the Minaean kings exercised their power as far north as Teima, and even on the borders of Egypt and Palestine; and it is therefore not surprising that the alphabets of Safa and its neighborhood are Minaean rather than Aramaic in character.

We are but just awakening to the fact that Arabia was once the seat of a high civilization and of a developed inland and maritime trade. If Dr. Glaser is right, there are epigraphic monuments in the south of the Peninsula which go back to the age of the Egyptian Hyksos. At all events the Assyrian inscriptions prove that Saba was a flourishing monarchy in the VIII century B. C., and that its power extended to the frontiers of Babylonia. If, as Dr. Glaser has endeavored to show, the kingdom of Saba arose on the ruins of that of the Minaeans, we are carried back to a high antiquity for the flourishing period of the latter, as well as for the origin of the alphabet in its South Arabian form.—A. H. SAYCE, in *Acad.*, April 15.

WESTERN ASIA.

THE TREASURE-CITIES OR ECBATANAS OF WESTERN ASIA.—A rather novel subject is treated by Mr. Wm. F. Ainsworth in the *Proc. of the Soc. Bibl. Arch.* (xv, 8, 1893). The building of strong fortified places, either castles or citadels in connection with cities, began early in oriental history. In *Ezra*, viii. 11, the Jews sought for the decree of Cyrus and found it at Achmetha, "in the palace that is in the province of the Medes." The translators have put Ecbatana in the margin; this form, as also Acbatana, Egbatana and Agbatana, were the Greek renderings of Achmetha.

I. *The Ecbatana of Greater Media.*—The Achmetha just alluded to is generally identified with Hamadan, whose name appears in Syriac as Achmathana. Amadiya, the Ecbatana of Assyria, is another form of the same word.

II. *The Ecbatana of Lesser Media.*—Sir Henry Rawlinson seeks to prove that the present Takht-i-Sulaiman was the site of another Ecbatana, that of Atropatene, or Lesser Media; and that to it, rather than to the Ecbatana of Greater Media, the statements of Herodotus and most of the ancient accounts refer.

III. *The Ecbatana of Babylonia.*—Its existence depends upon the authority of Plutarch's life of Alexander, who says that the conqueror proceeded, after the battle of Arbela, through the province of Babylo-

nia to Ecbatana, where he was particularly struck with a gulf of fire, which streamed continually from an inexhaustible source. He was surprised also by the flood of naphtha not far from the gulf. Such a phenomenon is not met anywhere except at Baku and at Kir-kuk in Babylonia, or on its confines. The Arabs call the naphtha fires at this latter place *Abū Geyer*, and the Turks *Kurkur Baba*, "Father of Naphtha," and the fires were burning brightly in 1837 when the writer visited the site. Close by there exists a town, in the midst of which rises a lofty rock, crowned by a castle of vast dimensions, only comparable to the castles of Arbela, Amadiya and Urfat. Here then, at Kir-kuk, was an Ecbatana.

The Ecbatana of Assyria.—Mr. Rich first pointed out that the castle of Amadiya—the strongest fortress in all Kurdistan—was an Assyrian Ecbatana. According to Mr. Rich, the castle retains the title of Ikkadan. This is made quite certain when we consider the vast dimensions of its castle, situated on a lofty precipitous rock, approached only on one side, its ascent protected by strong portals with colossal representations of Assyrian monarchs sculptured on the rock side. Unlike the castles of Kirkuk, Arbela and Urfah, it had not a city around it or on the plain below.

The Ecbatana of Persia.—It is in doubt whether the Ecbatana mentioned in Pliny (vi. 29) was the castle of Pasargada, in the mountains apart from Persepolis, or was the treasure citadel of Persepolis itself.

The Ecbatanas of Syria.—Gaza stands at the head of the Ecbatanas of Syria. The word means, "a treasury," and was adopted into Greek: it was probably a translation of Achmetha. Pliny says that on the mountains of the promontory of Carmel was a city of the same name, which was an Ecbatana.

The Treasuries of Parthia.—According to Isidoros of Charax, the Parthians had a Gaza or treasury at Anatho or Aratha (Ara on the Euphrates), known as Phraates Gaza. The stronghold is described as being an island. The Persians, on their side, erected under Tiridates an opposition stronghold, also on an island of the Euphrates, twelve *schæni* below Anatho. It is called *Olabos* by Isidoras, *Teridata* by Ptolemy, and *Thilutha* by Ammianus Marcellinus, and is now known as Tilbes. It defied with its strength the Emperor Julian. The passage in Tacitus (lib. xv. 31) which refers to Tiridates went by the Euphrates to the Ecbatana of the Parthian Vologeses, is explicable only by supposing it to refer to Anah.

ORIENTAL DIPLOMACY.—By Charles Bezold. By "Oriental Diplomacy" Dr. Bezold explains that he means "the transliterated text of the cuneiform despatches between the kings of Egypt and Western

Asia in the xv century b. c., discovered at Tel el-Amarna, and now preserved in the British Museum." But it is something more than this. Dr. Bezold has prefixed to it an account of the phrasology and grammatical peculiarities of the texts, and has added a very useful vocabulary of the various words which occur in them. For the Assyriologist the book is a serviceable and handy supplement to the British Museum volume on the Tel el-Amarna tablets. The author is specially skilled in the art of cataloguing and dictionary-making, and it is needless to say that he has done his work well. It is a pity, however, that his book was finished, as we may gather from the date of the preface, too soon to allow him to profit by some of the criticisms which have been passed on the British Museum volume, and so avoid the errors committed in that work. Thus the letters from Akizzi (Nos. 36, 37) are still stated to be addressed to Amenophis III, instead of Amenophis IV; Ubi, the Egyptian Aup, is identified with the Biblical Hobah, which was in a different part of the oriental world; and the name of the city of Qatna is wrongly transliterated. Dr. Bezold gives a summary of the contents of each letter, instead of a translation, on the ground that in the present state of cuneiform research it would "be impossible to give a translation of the Tel el-Amarna texts which would entirely satisfy the expert or general reader." Had the older Assyrian scholars acted on such a principle, Assyriology would not be advanced as it is to-day. The grammatical peculiarities of the Tel el-Amarna letters have been registered with painstaking care, and will materially further our knowledge of Assyrian grammar. The vocabulary at the end of the book is excellent, and makes us wish that Dr. Bezold would do for the collections of tablets at Gizeh and Berlin what he has done for the collection in the British Museum.—*Acad.*, Oct. 27.

BABYLONIA.

BABYLONIAN CHRONOLOGY.—The last work of the late Mr. George Bertin is printed in the new volume of the *Transactions* of the Royal Historical Society. It is a paper which he read before that society about a year before his death. The subject is "Babylonian Chronology and History," restored mainly from the dynastic tablets in the British Museum. The result is to confirm, to a large extent, the statements of Berossus, whose accuracy has also been supported by the researches of Prof. Sayce. At the end is a list of all the several dynasties that ruled in Babylonia from mythical times down to the Seleucidæ. Wherever possible, dates and the duration of reigns are given, and the names of the monarchs both in cuneiform characters

and transliterated. Work of this kind must always be tentative, in view of the continual discovery of new sources of information, such as those recently brought back by the American expedition to Babylonia. But this consideration affects only to a slight extent the permanent value of Mr. Bertin's labors.—*Acad.*, Sept. 9.

The new part of Bezold's *Zeitschrift für Assyriologie* will contain a paper on Babylonian chronology, which Dr. Strassmaier proves to have been based upon periods of eighteen years.—*Athen.*, June 10.

THE RAPE OF ERIS-KIGAL.—At a recent meeting of the *Académie des Inscriptions*, M. Joseph Halévy read a paper upon the Rape of Proserpine in Babylonian mythology. Hitherto this legend has been considered exclusively Greek, or perhaps as derived from the Egyptian myth of Isis and Osiris. But M. Halévy now claims to have discovered it on a Babylonian tablet of the xv century b. c., which was among those found at Tel el-Amarna. Nergal, the Babylonian Pluto or Hades, desires to wed Eris-Kigal (=“the desire of Hades”), who is daughter of Anu, the Babylonian Jupiter. On the refusal of the father, Nergal orders Namtar, who plays the part of Hermes as conductor of the dead, to bring her by force to his palace. Eris-Kigal yields to threats, and consents to become the wife of Nergal, on condition of sharing his authority. “I wish,” she says, “to share the power that you exercise: you shall be the lord and I will be the lady.” The text then goes on: “Nergal approves of this, and instead of being angry, embraces her and dries her tears. ‘All that thou desirest from this moment, that I will grant to thee.’”—*Acad.*, Aug. 5.

THE BABYLONIAN ZODIACAL SIGNS.—Mr. Robert Brown, jr., writes that Mr. Pinches has called his attention to a Babylonian tablet (No. 85-4-30, 15) in the British Museum which gives the twelve months and a leading star or constellation connected with each. Mr. Pinches dates it “about 500 b. c.,” adding that it may be a copy of an earlier tablet, which appears to be almost certain. The tablet is thus unaffected by Greek influence, and we see that the division of the ecliptic into twelve zodiacal parts was a genuine Euphratean product, and not introduced, as Mr. George Bertin sustained, only during the Greek period, by Seleucidian astronomers. Mr. Brown explains the reading and meaning of each star or constellation on this tablet, which he calls the *Tē* tablet, because instead of either of the ordinary forms for *kakkab*=star, the form *te*, an abbreviation of the Assyrian *temennu*=Akkadian *dimmenna*, and meaning primarily “foundation-stone,” and here “principal point” (*i. e.*, chief star or sign), is used.—*Acad.*, Nov. 4.

EXISTENCE OF A COPPER AGE IN BABYLONIA.—At a recent meeting of the *Acad. des Sciences*, M. Berthelot made a communication about some objects of copper discovered by M. Sarzec in the course of his excavations in Babylonia. The analysis of these confirmed M. Berthelot's views as to the existence of an age during which pure copper was used instead of bronze, the latter being introduced after the rise of commerce in tin. A fragment of a small votive figure, found among the foundations of an edifice more ancient than the reign of King Ur-nina, was assayed for copper and chlorine by means of nitric acid. It contained neither bismuth, tin, antimony, zinc, nor magnesium; only traces of lead, arsenic and sulphur, and 77·7 per cent. of copper, the bulk of the rest consisting of alkaline earthy carbonates and silica. Its composition resembles that of the statuette of the Babylonian King Gudea, of Telloh, and also that of the Egyptian King Pepi I, of the vith dynasty, showing that in those early times tin was not known in the two most ancient homes of civilization.—*Acad.*, Feb. 18.

FATHER SCHEIL'S INVESTIGATIONS.—According to the *Levant Herald*, the Rev. Father Scheil, a Dominican, has for the last three months been employed in cataloguing the Assyrian and Chaldaean antiquities of the Imperial Museum at Constantinople. He has deciphered some cuneiform inscriptions. He is shortly to leave, with Bedri Bey of the Museum, for Abou Haba, the old Sippara. As this site is in the Crown domains, the Sultan contributes to the expense of the explorations.—*Athen.*, Jan. 14.

BABYLON.—EARLY NAME OF THE CITY.—Rev. C. J. Ball and Prof. Hommel have published some notes in the *Proc. of the Soc. of Bibl. Arch.* on the early names of Babylon and Borsippa, which enable us to trace the history of Babylon back of the time when Hammurabi and his dynasty gave it the name and rank by which we know it. The old name of Babylon was GISGALLA, and that of Borsippa KINNIR, or Kin-unir. Gisgalla means "door," and Ki-nir "place of the tower." An inscription of Ur-ban (c. 3750) proves the existence of Gisgalla=Babylon at this early time as a holy place. The inscriptions of the early king or patesi of Sirgurla *E-anna-du* mention immediately after Uruk the city of *Gishgalla*. A later patesi, *En-timinna*, has "To the god *Lugal-Gishgalla* (King of Gisgalla or Babel), I built the palace of his town *Gishgalla*." Gudea, also King of Sirpurla, mentions Du-ri-zuab, lady of Ki-nu-nir, as his goddess; so that we may conclude that this great prince possessed also Babel and Borsippa. Some centuries before Hammurabi, King Sin-idina of Larsa built a canal from Larsa to Gishgalla and Tri-aku (Rim-Sin) before his overthrow by Hammurabi, "rebuilt *Gishgalla-ki* of the goddess Ma-sig-dug"—a striking

illustration for the time for the vassalship of Amraphel to Larsa in the days of Ariokh. A few years later Hammurabi overthrew his former patron and rebuilt the temples of Larsa. A seal published in Sarzec's *Découvertes* (pl. 30 bis, h^r 11), gives the name *E-ki-rapal-tu* (or *rapas-tu*), King of Gishgalla, which is curiously like Kimtu-rapashtu, the other name of Hammurabi.

TELLOH.—SILVER VASE.—M. Heuzey writes to the *Acad. des Inscr.*, June 2, 1893, that, thanks to Hamdy-bey, director of the Museum at Constantinople, he has been able to study the remarkable silver vase found by M. de Sarzec in the excavations at Telloh, Chaldea. By the side of the inscription, which contains the name of the patései Enténa, there is found a decoration finely incised representing in one zone an eagle with lion's head perched upon two walking lions. This design is repeated four times, as if it were the armorial bearings of this ancient dynasty. Above this zone is a narrower one, on which are represented heifers at rest. This is the most ancient example of decoration showing superposed zones of animals, a type which continued for centuries, and passed into the early stages of Greek ceramic art.—*Rev. Arch.*, July-Aug., 1893, p. 112.

PERSIA.—VALERIAN AND SAPOR.—The *Bibliothèque Nationale* in Paris has recently acquired a cameo, of large size and of the finest workmanship, showing a duel on horseback between a Sassanid king and a Roman emperor. M. Babelon, the keeper of the department of coins, recognizes in the subject a traditional representation of the capture of Valerian on the field of battle by Sapor I (A. D. 250).—*Acad.*, June 17.

ASSYRIA.

KING ADAD-NIRAR.—At the meeting of the *Acad. des Inscr.*, on May 9, 1893, M. Oppert began the reading of a dissertation on an Assyrian inscription of the King Adad-nirar. The text, which cannot be later than 1422 B. C., contains, besides the titles and genealogy of the prince, the account of the restoration of a temple of the god Asshur on the Tigris. Oppert deplores the little progress made during the past forty years in the interpretation of cuneiform texts. He notes that this text mentions a people called Quti or Guti, whom he identifies with the Germanic nation of the Goths [!].—*Rev. Arch.*, July-Aug., 1893, p. 114.

A BILINGUAL VANNIC AND ASSYRIAN INSCRIPTION.—Prof. Sayce writes: "I have a discovery to announce of considerable philological importance. It is nothing less than that of a bilingual Vannic and Assyrian inscription. The fortunate discoverer is M. de Morgan, the director of the Egyptian Service of Antiquities, who obtained squeezes of the

two texts at the risk of his life. These have just been published by the Rev. Fr. Scheil in the *Recueil de Travaux relatifs à la Philologie et à l'Archéologie égyptiennes et assyriennes*, xiv. 3, 4. The fact that they are translations one of the other has, however, escaped his notice. The inscriptions are found on the two faces of a blue stone column in the pass of Kel-i-shin Sidek. The Vannic text is a duplicate of one on another stone column in the pass of Kel-i-shin Ushnei, which I have published in my Memoir on the Cuneiform Inscriptions of Van, No. LVI. As M. de Morgan states that the latter stone is now destroyed, the cast which was made of it for me, and which I have sent to the Ashmolean Museum, acquires an additional value. All three texts are shockingly mutilated, which accounts for the fact that Dr. Scheil did not notice that the Assyrian and Vannic versions correspond line by line with one another. Nevertheless, the Assyrian version throws a good deal of light on the Vannic vocabulary and grammar.

The inscriptions were erected by Menuas, who ruled over the Vannic kingdom in the VIII century b. c. The Assyrian version shows that the city called by the Assyrians Mutsatsir was close to the pass of Kel-i-shin Sidek. In the Vannic version it is called the City of Ardinis, "the Sun-god;" and I conclude, therefore, that Mutsatsir was a name of purely Assyrian origin, signifying "the place from which the serpent issues." The seal of the last king of Mutsa-tsir contains a reference to the *tsir* or "serpent" (Sayce, LVI.). I should add that the Vannic version seems to allude to an early king of Van otherwise unknown, called (Sar?) durazaus.—*Acad.*, Aug. 5.

SYRIA.

TADUKHEPA'S DOWRY.—Major Conder has a note in the October number of the *Pal. Expl. Fund*, and while not feeling ready to accept his readings unquestioned, we here quote from him, as the subject is very interesting for the history of an unknown section of the ancient art of Western Asia.

"This list of presents sent to Egypt with the bride of Amenophis III is highly important, as indicating the civilization of the xv century b. c., extending to Armenia, and indicating trade with Central Asia. It is contained in the tablet numbered B 26 of the Tell Amarna collection. . . . At the bottom of the left-hand column at the back (lines 44 to 50) the following passage occurs: 'These are the (treasures?) of the female slaves, all the things that Dusratta, King of Mitani, gives to Amenophis III, King of Egypt, his brother, his relation by marriage . . . for Tadukhepa, his daughter, to the land of Egypt, to Amenophis III for marriage, when he gives her he gives them.' The list begins with a pair of horses and a chariot, the whole

plated with gold and set with some kind of precious stones, and with silver, with shafts and crossbars of gold, the weight of which is stated and the details described, with the ornaments of the horses' harness. A litter for camels appears to follow, adorned in similar style, and cloths of purple and many colors, and are worked with gold, with a girdle fringed with gold, and rings of gold. Objects of bronze and of gold follow, and possibly a headdress adorned with gold, and other garments. A (crescent?) of rubies, emeralds, and other precious stones, and an arm-band of gold and gems follow. A saddle for a horse is adorned with eagles of gold and precious stones, apparently including turquoises. In the next column is enumerated a necklace of gold and gems, a bracelet of iron and gold, with gems, an anklet of gold, and another ornament with twenty-five emeralds. Eyes of gold and rings of the same, and a collar in six rows, with other articles of gold and gems, including emeralds. The dresses include one of purple, apparently of Phoenician work, and another from the city *Khat*; another which was green, and a third dyed crimson. Ornaments of precious stones, including emeralds, follow, and a carved throne, gilded and veneered with wood supposed to be ebony, and a bracelet of silver and vessels of copper with gold handles. The final objects appear to be chests to hold the presents—of stone.

"On the back of the tablet some object of jade is noticed, and leaves of silver and gold, with cloths for beds (or seats). A number of objects of bronze (or copper) are then enumerated, some of which belonged to a chariot; and on the right-hand column of the back boxes of strong wood (ebony?) to hold the treasures, and some object adorned with gold lions and set with emeralds, with other things of ebony, white wood, silver, gold, and gems—Phoenician robes and others from the city *Khat*, and bronze objects for horses.

"Another long tablet (25 b), giving a similar list, appears to be part of the same inventory. It is much injured on the left side, but the enumeration includes earrings with gems and trinkets adorned with emeralds and other gems, which occupy the whole column. In the right-hand column we find mention of a necklace of gold and gems, and eyes of precious stones, a bracelet of gold, an anklet of gold and other bracelets, one of iron adorned with gold, and a clasp or brooch of gold and emeralds. After this, boxes to hold the treasures are enumerated, one being of alabaster and another adorned with gold. Objects of silver follow to the end of the column.

"At the back of the same tablet other objects of gold and silver come first, including an anklet and other adornments for the feet and body. On the right-hand column silver objects come first, and horns

of the wild bull follow, adorned with gold, and other objects of ebony and gold. Finally bracelets and anklets of gold are described in detail, and a 'pair of earrings of gold, with pendants of emerald and stars of gold,' and as many as twelve bracelets and eighty anklets of gold, and ten silver anklets for women, with silver adornments, and twenty earrings of gold with pendants of gems.

"I am not aware that any translation of these tablets, or even an abstract of their contents, has yet been published. Those who are acquainted with the treasures found at Mycenæ and Troy by Dr. Schliemann, in the lower part of the ruins, which are supposed to be as old perhaps as 1500 b. c., will observe the resemblance between the art and material of the objects which he discovered and those which came from Armenia to Egypt. Wherever the precious metals and gems were found, jade could only be obtained in Turkestan, and white jade only on the borders of China."

RESEARCHES BY BRÜNNOW AND DOMACZEWSKI.—Two Heidelberg professors, Dr. Brünnow (Oriental philology) and Dr. von Domaczewski (ancient history), intend to make a common "Studienreise" in Syria next winter. The chief end of their journey is the pursuit of archæological researches in the country east of Lebanon and in the district of Edessa, where the two scholars hope to find valuable material for the illustration both of ancient and mediæval history.—*Athen.*, Aug. 5.

THE PANAMMU INSCRIPTION FROM SINDJIRLI.—The famous Panammu inscription in Aramaic found at Sindjirli and now in the Berlin Museum (see *JOURNAL*, vol. VII, pp. 309-313*), has been translated by Prof. Sachau in the *Mittheilungen* and M. Halévy in the *Revue Sémitique*. Mr. J. A. Craig gives a translation made before seeing Halévy's. It reads as follows:

"This statue Bar-Rekub erected to his father, Panammu, the son of Bar-Sur [in commemoration] of the year in which he escaped [the destruction which was in the house] of his father.

"The gods of the land of Ja'di delivered him from the destruction which was in the house of his father. And (certain) people arose and destroyed (?) . . . The sword (?) of destruction [they brought] into the house of his father. And they slew his father, Bar-Sur, and slew seventy, 70, of the kinsmen (?) of his father. . . . And the rest of the land filled the prisons, and they caused the cities that were laid waste to be more numerous than those that were inhabited. Then [spake the god(s) of the land of Ja'di] to the people before me (?) Ye have put a sword in my house and ye have slain one of my sons, therefore, will I make grievous the

* We then placed Sindjirli in Asia Minor, but its connection with Syria, on whose borders it is, has become so evident that it should be placed under that heading.

destruction of the sword in the land of Ja'di. . . . Panammu, the son of Qaral. . . . [And it was destroyed] the grain and millet and wheat and barley and a half a measure (of each) was sold for a shekel, and a quarter of a shat of vegetables for a shekel, and an *asnag* of wine (drink) for a shekel. Then brought my father Pan[ammu wine] with presents to the King of Assyria. And he appointed him king over the house of his father. And he emptied the prisons and set free the captives of [the land of] Ja'di . . . and he set free the women who were in the prisons. . . . [He rebuilt the house] of his father and made it more beautiful than before. And wheat and barley and grain (?) and *Choroth* were multiplied and there was food in abundance . . . its price was diminished (?). And in the days of my father, Panammu, he appointed men lords of *Kefiri* and lords of chariots and my father, Panammu, caused them to go upon the highway(s?) of the Kings of *Kbr* . . . my father was not a lord of silver and not a lord of gold (==was not rich in silver and gold). In his wisdom and in his righteousness, accordingly (?), he laid hold upon the skirt (wing) of his lord, the king of Assyria, the great [king]. And the king] of Assyria appointed him over the prefects and governors (?) of (the land of) Ja'di and his lord the king of Assyria made him to rejoice over the kings of *Kbr*. (prob. means kings of surrounding regions). . . . In the chariot (?) of his lord Tiglathpileser, the king of Assyria, [he went.] His (Tiglathpileser's) camp was pitched from the East even unto the West. . . . The four quarters (of the earth he subdued) and the people of the East he brought to the West and the people of the West he brought to the East. And my father [fought for him and he added to his territory] his lord, Tiglathpileser, king of Assyria, cities from the territory of Gur-gum. . . . And my father, Panammu, the son of Bar-Sur. . . . And my father, Panammu, also died in the service (?) of his lord Tiglathpileser, the king of Assyria, in the camp . . . and all the camp of his lord, the king of Assyria, wept for him. And his lord, the king of Assyria, took . . . and he set up for him coverings (?) for a month and (afterwards) he brought (the body) of my father from Damascus to its place. All his house mourned for him and, I, (==as for me) Bar-Rekub, son of Panammu, because of the righteousness of my father and because of my own righteousness, he caused me to sit, my lord, the king of Assyria (upon the throne) of my father Panammu, the son of Bar-Sur. And I have set up this statue (as a memorial) to my father, Panammu, the son of Bar-Sur. . . . And I gave command with respect to presents and offerings specified (?) . . . and the presents were brought before the grave of my father, Panammu. . . . And this memorial is before Hadad and El and Rekub-El, the lord of the house, and Shemesh and all the gods of Ja'di . . . [it is] in the presence of the gods and in the presence of men."—*Acad.*, Apr. 22.

THE PANTHEON OF THE PANAMMU INSCRIPTIONS.—M. Joseph Halévy has issued the first number of his *Revue Sémitique, d'Épigraphie et d'Histoire ancienne* (Paris, Leroux), which contains continuations of his 'Recherches Bibliques,' the second part of his article on the Tel el-Amarna tablets, notes on some pretended Hittite inscriptions, and some cuneiform and Ethiopic texts. The most interesting essay, in our opinion, is that on the two Semitic inscriptions discovered at Sindjirli (North Syria), the originals of which are in the museum of Berlin, and of which photographic facsimiles are now published in

the *Mittheilungen*, fasc. ix. The decipherment of these inscriptions is not particularly satisfactory as yet. The inscription where the king of Yadi, Panammu son of Krl, is mentioned, is of the eighth century, and the other, where Panummu son of Bar-Tsur is mentioned, is of the seventh century; the latter was contemporary with Tiglath-Pileser III., whose name occurs in the inscription with the same orthography as in the Bible. The gods mentioned in the inscriptions are the following: Hadad, El, Rkb-el, Reshef, and Shemesh. The language of these inscriptions is either Hebrew tinged with Aramaic, or, according to another opinion, Aramaic tinged with Hebrew. Which Semitic tribe was dwelling in this northern country between the Orontes and the region of Marash, called in Assyrian Samal (*šamāl*), "north," is at present doubtful. M. Halévy thinks they were Hittites, or the Hatti of the Assyrian inscriptions, who consequently spoke a Semitic dialect, a fact in accordance with the Bible (Genesis xv.). Thus, according to M. Halévy, the Hittite problem is now solved. The inscriptions found in Hamath and Aleppo, M. Halévy says, were written by invaders coming from Anatolia. As to the Pantheon of the Panammu inscriptions, El is known. Rkb-El seems to us connected with the Biblical Rechab, the founder of the Rechabites (Jeremiah xxxv. 2), and not with Rechub and Cherub, as Prof. Sachau suggests. Reshef has been recognized as a deity by M. Clermont-Ganneau in connexion with Job v. 7. See also 1 Chron. vii. 25. Shemesh, "sun," is known.—*Athen.*, Mch. 18.

PALESTINE.

THE KARNAK LIST AND THE BIBLE.—A paper was read at the meeting of the Victoria Institute on May 1, from Prof. Maspero, embodying the results of his investigations during the past ten years as regards the places in Southern Palestine claimed, according to the Karnak records, to have been captured by the Egyptians in the campaign under Sheshong (Shishak) against Rehoboam. Prof. Maspero pointed out the great help that the recent survey of Palestine had been in determining the localities referred to, and specially referred to the fact that the Egyptian documents, rigorously transcribed in Hebrew characters, gave almost everywhere the regular Hebrew forms in the Bible, without change or correction.—*Acad.*, May 1.

RAISED MAP OF PALESTINE.—After five years' work, Mr. George Armstrong, Assistant Secretary to the Palestine Exploration Fund, has made a raised map of Palestine on a scale sufficiently large to show the relative proportions of the physical features of the country. It is on a scale of $\frac{1}{4}$ in. to the mile, and measures 7 ft. 6 in. by 4 ft. It embraces the whole country from Baalbek to Kadesh Barnea,

showing on the east of Jordan almost all that is known; and it is constructed entirely on the basis of the surveys of the Fund as embodied in the recently-issued map. The seas, lakes, marshes, and perennial streams are in blue, the watercourses on the plains and main roads are marked by a grooved line, the Old and New Testament sites in red, and the plains and hills are in white.—*Pal. Expl. Fund*, Oct., 1893.

PALESTINE UNDER THE CRUSADERS.—Herr Röhricht, well known as a student of mediæval Palestine, has published a valuable compilation of the contemporary documents, treating of its history from 1099–1292 A. D., including the letters of Popes, Kings, Emperors, Sultans, and others, with grants to the Church, the Military Orders, and the Italian traders, and with ecclesiastical correspondence from a variety of sources, under the title *Regesta Regni Hierosolymitani*. He has added excellent indexes and a glossary of the peculiar Latin of the time, full of Norman and Arabic words. The documents published number 1519.—*Pal. Expl. Fund*, July, 1893.

PROBABLE EXCAVATIONS.—The excavations carried on at Tell el-Hesy (Lachish)—first by Prof. Flinders Petrie, and afterwards by Mr. E. J. Bliss—are now closed; but the committee of the Palestine Exploration hope that they may soon obtain a firman for excavating elsewhere. Meanwhile, important researches are being conducted along the line of railway now in progress between Haifa and Damascus, which passes through the heart of the Northern kingdom of Israel. Mr. Bliss's final report upon his work at Tell el-Hesy will be published by Messrs. A. P. Watt & Son early in the new year, under the title of *A Mound of Many Cities*, with upwards of 200 illustrations.—*Academy*, Oct. 21.

PHILISTINE MICE AND OTHER ANTIQUITIES.—Herr Schick calls attention in the Quarterly Statement of the *Pal. Expl. Fund* (Oct., 1893), to some metal figures of mice in the collection of antiquities of Baron Ustinoff at Jaffa. He says: “The baron has about half-a-dozen creatures made from white-looking metal, not silver, but harder than pewter or zinc. They were found by the peasants in the land of the Philistines and represent mice. When I saw them, at once *I Samuel*, vi. 4, 5, came into my mind. These figures are not solid, but half relief, and pressed out from a flat piece of metal. They are without a tail, but have a hole into which a string could be fixed by which to hang up the figure as an amulet. The five golden mice which the Philistines put as an atonement with the Ark of the Covenant when sending it back, as related in *I Samuel*, vi. 4, 11, were perhaps such amulets.” This discovery is most interesting.

In the same collection were other interesting pieces. (1) A half-dozen curious figures made of hollow copper, representing a kind of serpent with a dragon's head, with two long ears, and in its sharp, beak-shaped mouth a falling ball. It is cast, not beaten, work, but no two were cast in one form or model. (2) A block of reddish hard stone, on which is carved the figure of a woman with two wings in a recumbent position. The hands and feet, instead of ending in fingers and toes, end with fish-tails. Close to the feet, is the word EYTYXHC, and on the side: Εὐτύχης χρηστὲ καὶ ἀλυπὲ, χαῖρε· Ζῆσας ἔτη . . .

ASCALON.—A CRUSADING ARCHITECT.—Baron Ustinoff has added to his collection of antiquities at Jaffa a slab with a Latin inscription brought from Ascalon. It begins with † MAGISTER FILIPVS, the name of the architect: then follows, on the second line, his designation as *de camera Regis . . .* showing that he was official architect to † a king who is supposed by Baron Ustinoff to be Richard Cœur de Lion. On the third line is *fecit hoc opus*, while the fourth gives the part of the fortifications that he erected, describing them as from a point unknown (the inscription is broken here) up to the gate where the inscription was evidently placed. The inscription is broken away in the lower left-hand corner, and the reading given is in part faulty, so that the above is all I could decipher.—A. L. F., Jr., from *Pal. Expl. Fund*, Oct., 1893.

GAZA.—INSCRIPTIONS.—M. Clermont-Ganneau, in the meetings of the *Acad. des Inscr.* for Apr. 23 and 28, 1893, read a communication on the inscriptions of Gaza, and on the determination of the calendar and era of this city. The inscriptions are thirty in number, Christian epitaphs, exactly dated. The years are indicated according to the era of Gaza, which is proved to have begun on Oct. 28 of the year 61 B. C. In some cases the era of Ascalon is used, which would appear to have begun Oct. 28 of the year 105 B. C. He then described two churches built at Gaza by the crusaders. The largest has three aisles, one of which is an elevated nave, with two orders of piers. The façade with its gable, its two engaged buttresses, its central rose window, its finely sculptured portal and well preserved porch, recalls French churches of the XI and XII centuries. One of the ancient columns used in the interior bears in relief a representation of the seven-branched candlestick with a dedication in Greek and Hebrew to Ananias, son of Jacob. This column is apparently from some Byzantine synagogue, brought by sea, perhaps from Alexandria or Cæsarea.—*Rev. Arch.*, July–Aug., 1893, 107–108.

EGYPTIAN VASE.—An elaborate vase has been found near Gaza which is commented on by P. C. Page Renouf in the *Pal. Expl. Fund's Quar-*

terly for July, 1892. The inscription on it contains three royal Egyptian cartouches. Two contain the throne name of King Amenhotep III, of the 18th Dynasty, *i. e.* *Nebmaat-Rā*. Facing these rings is that of his queen, Tia. Under the three names are the words, "giving life forever."

JAFFA.—TABITHA GROUND.—In the garden east of the city is a piece of high ground called *Ard Tabitha*, which was a large burial-ground and contained rock-cut tombs, many of which have been destroyed in making modern "improvements." On the highest part of it, belonging to the Russian Archimandrite, Mr. Schick made investigations which he reports in the *Pal. Expl. Fund Report* for October. The rock-cut tombs are cut in a rock not so hard as that at Jerusalem, and in a somewhat different style. Several have been cleared by the Archimandrite, and the most important one converted into a chapel, now called the "tomb of Tabitha." Its *kokim* or *loculi* enter the rock about 8 ft., are 2½ ft. wide and 3 to 5 ft. high at the entrance, but further in become lower and more and more narrow: they are closed with masonry. From the first chamber a narrow passage leads to another with a rock support in the middle, through which is an entrance to other tombs. On a number of epitaph stones there were inscriptions, some of which were published by Euting in the *Sitzungsberichte* of the Berlin *Akad. d. Wissen*, for 1885 (xxxx). Mr. Schick publishes fac-similes of five inscribed Greek inscriptions, without, however, attempting to read or explain them. Inscr. No. 1 reads: Θύκη Ζ[ωλ] | ον νιοῦ Κ[λα] | Πτολεμ[αι] | ον ἐτολι | . . . εις αὐ[τόν], and marks the tomb of Zoëlos, son of Claudius Ptolemaeus." No. 2 is: Εἰσιδότη Αριστίω | νος, Χρηστή, Καΐρε: "Isidoté, daughter of Aristion." No. 4 reads: Τόπος Ειάκω(β) Καπ(π)άδοκος καὶ Ἀχολίας συνβίον αἴρον καὶ Ἀστρέπιον; "burying-place of Jacob of Cappadocia and of his wife, Acholia, also of Asterios." No. 5 has merely the name of Judas, son of Jannaeus. The objects found belong to the Graeco-Roman period.

JERUSALEM.—THE SECOND WALL.—Herr Schick contributes to the July Quarterly Statement of the *Palestine Expl. Fund* (1893) a short paper in which he states his opinion with reference to the second wall of the city, accompanying it with a plan. He says: "The line I give of the second wall is 2,600 ft. long, with 2 end spaces and 14 towers, and the spaces between them give 15 distances, or parts, and dividing the length of the wall by this number gives 173½ ft. for each." Josephus gives this wall 14 towers, and the average distance between the towers of the present wall is 178 ft., which agrees with Schick's line. The course he gives as follows: The starting-point at the present castle was found with a long piece of the wall going as far as the road

running eastward, 182 ft. N. of the corner of the Castle wall in the ditch; there it bends N. E. N. (and the zigzag line of this street is the result of the former wall with its towers) to the corner of the street, where it bends eastward, as did the wall. It crosses Christian street (some remains here) and goes straight to the Muristan, where traces have been found. There it bent northward and had in it a castle (remains exist), which was defended by the Jew "Castor" against the Romans, and the ditch west of which is traceable. At the N. end (remains exist) the wall bent eastward, and stood for a few hundred feet on a high rock-scarp, a good deal of which can be seen. This scarp formed an angle going southward for about 300 ft., forming a high rock platform about 350 feet square. Either from the N. E. or S. E. corner the wall went eastward down into the valley, across it, and onward to Antonia, either along the crooked road or more to the south. There were two walls, one made by Hezekiah, one by Manasseh. A series of proofs for this line are appended.

PHENICIAN INSCRIPTIONS ON VASE-HANDLES.—On some clay vase-handles discovered at the foot of the Haram wall are Phoenician inscriptions, which are discussed by Prof. Sayce in the Quarterly Statement for July, 1893, of the *Pal. Expl. Fund.* They are: (1), [L-M-L-K] SH-T; (2), [L]-M-[L]-K SH-K-H, and (3), L-M-L-K Z-PH. The first word, in all cases, signifies "belonging to the king", or "belonging to Melech": the preposition *l* should be followed by the name of the owner. Now Z-PH and SH-K-H represent the names of two localities in Judah, Ziph (*2 Chron.* xi. 8) and Socho (*Josh.* xi. 35). Melech (or Moloch) is the well-known title of a deity who was worshipped in Canaan as well as beyond the Jordan, and in Melech-Ziph and Melech-Shochoh Prof. Sayce proposes to see the local names of a god, in the same way as the god of Tyre was called Melech-Qiryath=Melkarth. The third name is Melech-Sheth, and here Prof. Sayce sees the name of the Egyptian god Seth, the god of the Semites in Egypt, who was adopted as a deity by the Canaanites and worshipped with an ass's head. As an analogous example to this compound name of a divinity, the example of Hadad-Rimmon is adduced.

CHURCH OF THE CONVENT OF THE CROSS.—The plaster on the walls of this church, upon which were some ancient frescoes, has been removed. Among the figures were those of Socrates and Plato, represented as having prepared the way for Christianity, as is often to be seen on the walls of the porches of Byzantine churches.—*Pal. Expl. Fund.*, July, 1893.

CH. OF S. MARTIN.—Among the buildings and churches existing in the crusading time at Jerusalem, whose site had not been as yet iden-

tified, is S. Martin's church. It was situated in the modern Jewish quarter, east of the street, near the Mosque El-Omari. Recently Dr. Hanauer found in one of the Jewish houses in this region some columns that appeared to belong to this church. They were four in number, supporting cross-vaults. There were probably three aisles and three apses, and Mr. Schick believes that the central compartment was covered by a dome with a diameter of 24 ft., through which the light is supposed to have come, as there are no windows in the walls.—*Pal. Expl. Fund*, Oct., 1893.

In the same review Dr. Hanauer has a note on *The Churches of St. Martin and St. John the Evangelist*. His notes are historical. He shows that after the expulsion of the Crusaders in 1187, the church of S. Martin was allowed to fall into ruin, and was then bought by the celebrated Nachmanides and turned into a synagogue, A. D. 1227. Writing to his son, then living in Spain, Nachmanides says: "We found a very handsome but destroyed building, with marble columns and a beautiful cupola, and started a collection in order to restore this edifice as a synagogue; after which we began at once to build up the same." This building with columns and cupola still existed in 1852, and was known as *Al Maraga*, but had been forcibly taken from the Jews about the year 1566. It is evident from the drawing that at some time the vaulting collapsed and was restored, and an Arabic book, *Unus el Jehil* by *Mejir ed Din*, gives an account of the circumstances connected with the breakdown and the restoration. In 1473 the only access to a mosque in this quarter, abutting on the synagogue, was by a long narrow lane, and the Mohammedans took the pretext of the falling in of a house to attempt to open up a new access. Although official legislation favored the Jews, the local Mohammedans demolished the adjoining synagogue against the orders of the Sultan, who had the offenders punished, and sent a commission to rebuild the synagogue.

S. GILES AND S. JOHN THE EVANGELIST.—In the above-quoted paper by Dr. Hanauer, two identifications of mediæval churches are proposed. Just beyond the Mohammedan College called *Medressch et-Tazieh*, is an archway spanning the Tarek Bab-es-Silsileh, and on its northern side rests partly on massive fragments of columns and partly on a pier of masonry, which hides the facade of a crusading building. Through a broad doorway in this pier one gains access to a large and beautifully-vaulted chamber, the roof of which is borne up by two columns *in situ*, with mediæval capitals, from the sides of which ribs run up to the roof. The roof (vault?) evidently stretches over these walls northward and eastward, how far we cannot tell. The old doorway is

undoubtedly Crusaders' work, as is clear from the diagonal dressing. He thinks this vault was once the western end of the church of S. Giles. Going eastward, on the right, in a house erected through a long court-yard, some columns were discovered several years ago by Dr. Chaplin, who believed them to belong to S. Giles. These have now been removed with the exception of a base. Between the two sections of the church is a Crusaders' window, probably also belonging to it.

The site of the church of S. John the Evangelist is not known, but it is conjectured, independently of any remains, to have been at the corner of the Via Dolorosa, S. of the Armenian Catholic monastery, No. 27 Ordnance Survey. Now Dr. Hanauer calls attention to the fact that just at this point, opposite the Austrian Hospice, there is a remarkable mediæval house, two lower vaults of which are still entire, 30 ft. long and 15 ft. wide, side by side, and forming a platform, on the top or roof of which are the remains of a small church of which the chancel-arch and part of the side walls still remain. A Mihrab or Moslem prayer-niche built in diagonally under the chancel-arch, between two arched recesses that look like miniature apses, but are perhaps only walled-up windows, show that when the Mohammedans captured the city they turned the church into a mosque. The remains are called *El Jumi el Ahmar*.—*Pal. Expl. Fund*, October, 1893.

PHœNICIA.

PHœNICIAN EPIGRAPHY.—In *Studii d' Epigrafia Fenicia* (extract from *Atti dell' Accademia di Scienze, Lettere e Belle Arti di Palermo*) Sig. Astorre Pellegrini publishes a series of valuable notes upon Phœnician epigraphy, and upon the Phœnician inscriptions published by Renan in the "Corpus Inscriptionum Semiticarum." In the first part of the work he discusses the gods' names mentioned in these inscriptions, and describes the system and ideas of the Phœnicians in erecting stelæ, votive altars, &c.; the form and contents of the inscriptions are also dwelt upon, and the abundant references to classical writers and other authorities prove that he has gone to work in a careful and systematic manner. The second part consists chiefly of grammatical discussions upon difficult Phœnician names and words, and, together with Dr. Bloch's "Phoenicisches Glossar," will form a useful supplement to Renan's *magnum opus*.—*Athen.*, Sept. 16.

EUROPE.*

ITALY.

VETULONIA.—RECENT DISCOVERIES SINCE 1886.—Cav. Falchi has made, in the *Notizie degli Scavi* (1892, pp. 381-405, and 1893, pp. 143-161,) a

* Lack of space has made it necessary to defer the publication of the rest of the *News* until the next issue.

report on the discoveries made at Vetulonia since 1886, and especially during 1891. The previous excavations have been fully noticed in the JOURNAL (Vol. IV, pp. 175-180 and *passim*). Sig. Falchi himself has treated very fully of the later work in his *Vetulonia e la sua Necropoli antichissima*, accompanied by XIX plates. Already in 1888 we spoke of the discoveries at Vetulonia as the most important for early Italian archeology that had been made during the past fifty years, and now they certainly throw all others into the shade. It will be necessary to devote more than the customary space to a review of the work accomplished here.

In the same way as the discovery of the primitive *sepolcreto* and of the presence of foreign deposits among the Italic well-tombs of Poggio alla Guardia led to the finding of the stone circles, so the exploration of these circles has been the means of a still more important find.

The discoveries made since 1886 are due to a fact noticed from the beginning of the excavations in the primitive cemetery of the *Poggio alla Guardia* (1884-6). It was that between and as if sandwiched between the tombs with simple cinerary urns, always poor, all for the rite of cremation and lacking in any imported objects, there appeared, without any external sign of their existence, deposits which not only did not include any objects special to the Italic well-tombs, but consisted always, on the contrary, of imported objects. These deposits were not properly tombs, as they contained no human remains either by cremation or inhumation: neither could they be technically called tombs, because they did not have any open space nor any accompanying works of pottery nor were they furnished with any means of protection above. Still they must have been funeral deposits, because surrounded by the dirt of funeral pyres and placed in excavated holes, and because, strangely enough, they contained the teeth only of the defunct, the corona alone, surrounded by the funerary deposit. This deposit consisted invariably of amber, colored glass, scarabs, necklaces of bronze circles, bronze fibulae *a magnatta*, small tubes with pendants, double-headed cylinders, and sometimes objects in *repoussé* gold and silver finely worked. All such objects as these had appeared in other Etruscan necropoli, almost always in the well-tombs with cinerary urns of the Villanuova type, but here at Vetulonia they are not accompanied by a single object certainly Italic, and are grouped in these holes with order and symmetry around sets of teeth, often without any terracotta vase, sometimes on top of and about a small vase of red clay, always broken.

These deposits, very rare among the Italic well-tombs, less so in the spaces not occupied by them, appeared a little further on bounded by

an interrupted circle of red and formless sandstone on the edge of the cemetery of the *Poggio alla Guardia*, and these, although anciently pillaged, furnished a quantity of amber, glass, fibulae and bronze tubes similar to those found in the deposits without circles within the cemetery: in one of them was a statuette of Bes which occurs in another circle.

Stone Circles.—From this moment the stone circles became the main object of research during the springs of 1887, 1888, 1889 and 1890. It was found that they went on in ever-increasing size and sumptuousness, no longer in interrupted segments, nor made of formless sandstone blocks, but continuous and formed of white slabs of calcareous stone; and that they extended down the whole eastern declivity of the *poggio* of Vetulonia in a very extensive zone, preserving the same style and the same customs of the foreign deposits.

Of no less importance was a second fact. Having ascertained the existence in the *Poggio alla Guardia* of sepulchral deposits in complete antagonism with the contents of the well-tombs, he then became aware of the fact that even in the midst of this cemetery, surrounded by these very well-tombs, there were on the summit and a little eastward, certain rude stones arranged in circle, very much resembling those of the stone circles outside the cemetery. On examination, they were found to form similar circles of exactly the same dimensions, but instead of containing, like the others, a central cavity, they were full of Italic well-tombs, as many as 17 per circle, with typical cinerary urns almost always a *capanna* (house-shaped), some of which contained amber and glass similar to those in the foreign deposits but mingled in this case, as in nearly all the archaic necropoli of Etruria, with razors, fibulae a *scudetto* (shield-shaped), hair-pins and crude fictiles, objects that never appear at Vetulonia in the deposits with a central cavity. Cav. Falchi regarded this exchange of customs and objects between the circles of crude stones with central cavity and the circles containing Italic well-tombs, as indicating that more intimate relations had sprung up between the two opposite peoples, and that some of the better class of the well-tomb people had adopted the use of the circle. However, outside this cemetery of the *Poggio alla Guardia* no such well-tomb circles have been found, but only circles of white slabs of Sasso Vivo stone, a continuation of the foreign deposits. These more perfect circles begin to appear on the immediate border of the primitive necropolis (*P. alla G.*) Beginning with a diameter of six metres, they go on in increasing size as they extend down the east slope until they reach a diameter of 34 metres, and then return to small proportions and to the use of rude stones on the edge of the

slope and in the plain. They are often placed on uneven and sometimes on low ground. Rarely is there any superficial sign of their existence. The work in each circle consists in one or more cavities made in the soil without construction of any sort, without covering or protection, filled first with stones, then with earth. In the circles adjacent to the primitive necropolis there is but one cavity and it is in the centre, but in those further away, either the central hole is almost void of funerary objects, or there are several holes, in which case the contents increase in value the nearer the surface are the holes: hence it is possible that the richest deposits have been destroyed through the dispersal of their covering of earth. The objects are always carefully and symmetrically arranged in the holes, often in a stratum of pulverised wood, covered by the pyre-dirt or sometimes by cork-bark, but always stoned with the filling-stones, in order to so injure them as to prevent future use. As already remarked, there are no human remains: the only exceptions are a few of the later circles. The objects are of exactly the same categories as are found in the foreign deposits within the primitive necropolis: scarabs, amber, glass, bracelets, tubes, fibulae of bronze and amber, a *sanguisuga*, objects in gold and silver, and double-headed cylinders. The difference is that the circles are far more sumptuous and contain many other objects: there is a greater abundance and variety of objects in amber and glass, a larger number of fibulae, a greater profusion of gold and silver pieces, the constant presence of the furnishings for horses and chariots and many vases of bronze and crude terracotta. The ambers are of all shapes, and sometimes of human and lower animal forms: the scarabs of glass enamel preserve, in some cases, hieroglyphic inscriptions, and were evidently at times used as earrings; among the jewelry are heavy gold bracelets with broad bands, magnificently worked, fibulae, necklaces and pins worked in filagree. The furnishings for horses and chariots show everything needful for bigas or quadrigas, bits, head-pieces, blinders, straps, stirrups, wheel-tires, &c. Of works in bronze plate there are large smooth vases like cinerary urns, helmets, *schinieri*, striated vases, boilers, etc. Sometimes there are a goodly number of swords and lances of bronze and iron, but usually these deposits contain female ornaments. Certain rude and heavy handles of special shape and certain peculiar objects in the form of candelabra common to all the circles, are found for the first time at Vetulonia. The fistic vases, almost all of them striated and of black ware (bucchero), with conical feet and if large then crude and heavy, here show new forms but seldom decorated with running animals in low relief, never painted with human figures.

Another peculiarity, but one which is not constant nor confined to the stone circles, is the presence of certain monoliths of local granite or of Sassofero stone, also unknown throughout the rest of Etruscan necropoli. They are almost hemispherical, only slightly pointed, improperly called cones, and are almost always of great size and beautifully worked. They weigh up to four or five ton, and are sometimes single, sometimes in groups of two or even four per circle, being placed on edge in the centre of the circle on the filling-in stones, half-way between the surface and the bottom of the cavity. When large they are practically immovable by hand or lever, as they offer no hold. It is a peculiar fact that in all the circles where they are found the central cavity, though inviolate, is almost always without interesting contents.

The ethnographic and chronological deductions to be drawn from a study of these circles, and a comparison with the necropolis of poor Italic well-tombs are given by Cav. Falchi in the last two chapters of his book *Vetulonia e la sua Necropoli antichissima*. One point to which he calls especial attention is that the increasing profusion of works of gold and silver of developed art does not indicate any increase of productive culture during the period of the stone circles but only an increase of luxury and wealth.

The circles thus far explored—at the time of the report—numbered thirty-four, only a few of which were intact. The existence of many others is ascertained, and will be added to by further investigations. The first circle described is called *circolo dei monili*, and its contents are rich and varied.

Two hypogeums.—The hypogea found in the depths of the *Pietrera* tumulus is important not only for its architectural features, which connect it with the constructions of the Orient, and because it belongs to the necropolis of an Etruscan city reputed to be most ancient, but also because it raises a multitude of queries and problems. There is the question of the period of each of the constructions, of the races that built them, of the time that intervenes between them, of the probability that they were used contemporaneously, and to which of the two structures was originally related the rich tomb with the gold ornaments found in a part of the tumulus.

Now it should be noticed that the lowest and therefore the most ancient of the structures is formed entirely of squared blocks of *Sassofero* stone, without the admixture of a single slab of the *Sassorivo* stone which is exclusively employed in the upper structure. The Sassofero granite is very easily worked when it is fresh from the quarry, but after exposure and in dry surroundings it becomes ex-

tremely hard: it comes from the Sassofero Mountains, 30 kil. from Vetulonia, and is used on this site extensively enough to make a village. The earliest construction is covered by the spur and shows no remnant of the covering which must have existed to protect the hypogea, but it is interesting that an examination of the spur shows that among its sandstone slabs there are some well-squared wedge-shaped blocks of Sassofero which evidently once belonged to a hemispherical vault. Then an examination of the chamber itself shows that the walls are cracked and bulged, the piers of the doors broken, the interior filled with fallen wedge-shaped blocks of granite. The conclusion is that this structure in granite blocks was the earliest and only one existing at a very early period in the tumulus of *Pietrera*; that its dome fell in under the enormous weight of the superincumbent earth; that its walls and the spur constructed within it were made to serve as the foundations for another hypogea built above it with slabs of Sasso vivo.

As for the age of the two hypogeums, it is to be noted that among the few terracotta fragments found there is not one that does not belong to a very remote period: that those from the upper chamber, except for a few decorated and colored with foliated designs, are exactly like those found in all stone circles: that the jewelry found in the tomb for inhumation, which is in this same tumulus, is of the same technique and style as that of the stone circles. It may be concluded, therefore, that the earliest construction belongs to a remote age; that the author of both this and the upper hypogea were the same people, descendants of those whose custom it was in the beginning to place the teeth of the deceased among the most precious objects, all imported, in a hole excavated in the midst of the Italic well-tombs of the Poggio alla Guardia; which people added in the course of time to the objects in glass, amber and gold, all the harnessings for chariots and horses, and surrounded the sepulchral area with a stone circle; that this people used first cremation and then inhumation as its burial rites and employed the Etruscan alphabet.

The constructors of both hypogeums were equally expert in the art of building, as is shown by the regularity and exactness of the construction, the perfection obtained in the central pyramid and the structure of the vault, made of material difficult to shape and put together without cement. On the other hand, they are novices in their knowledge of local products, as is shown by the friability of the material used in the more ancient structure, which was the cause of the giving way of the vault notwithstanding the central pyramid. Hence it may be said that the earliest hypogea was the first made

in the necropolis of Vetulonia, and perhaps the only one made of Sassofero stone that is to be found there. Nor is it to be thought that the first structure lasted any great length of time before it fell in. Still, that it was used as a sepulchral chamber is shown by the broken colonnettes of *pietra fetida* arranged at equal distances and symmetrically on two opposite sides of the chamber: they certainly served to sustain a fixed monument of which fragments remain, crushed by the falling vault. No treasures in precious metals were preserved here, but there certainly were funereal articles which must have been carefully removed and hidden away in another part of the mound, although they have not yet been discovered. In order to determine to which of the two hypogeums the tomb with the gold ornaments belonged, it is necessary to note that the mound was originally made to cover the first hypogaeum, which was about five metres high; and that when the second hypogaeum, rising to a height of some ten metres, was erected on its ruins, the tumulus had to be not only raised, but enlarged in its circumference to such an extent as to change the tracing of the road, now called *dei Sepolcri* or *del Piano*, which encircled one of its sides, and obliging it to make a curve, which it did not originally have, as can be proved by a bit of the earlier road that remained buried under the edge of the enlarged mound. Neither of these hypogeums appears to have been, strictly speaking, a tomb: they contained honorary monuments but no funerary objects, which were doubtless concealed somewhere through the mound.

There are four tumuli of especially large size at Vetulonia, called *Poggio della Pietrera*, *Poggio del Diavolino*, *Poggio Pepe* and *Poggio S. Andrea*. The first of these, which is the one excavated, is of regular and almost hemispherical shape. Its height is about 14 m.; its diameter 70 m.; its circumference 210 m. After penetrating into it for about 11 met., it was found that the tumulus was formed at its base entirely of stones cast in at random, with wide interstices and arranged in irregular heaps. At a depth of 2.30 met. a small cone of Sassofero, like those of the stone circles, was found, and a little below it a squared stone of Sassofero, beneath which was a heap of sandstones covering a rich group of sepulchral objects, laid on the bare earth and crushed by the great superincumbent weight. It lay in the northeast of the tumulus, 17 met. from the centre, at a depth of 3.50 met. From the fact that here also no trace of the burial was found, Falchi conjectures that the body was simply placed in a trench close by and then stoned, as was the constant habit in the stone circles and all the tombs except the Italic well-tombs at *Poggio alla Guardia*, which are excavated in hard ground and covered with a slab. The main objects

in this deposit were two gold bracelets, a gold necklace, some fragments of silver plate, some fractured amber, a few and badly preserved bronzes, etc. The bracelets are similar in form and technique to the many found in the stone circles, the main difference being in a gold plate attached at the ends of the broad band and the middle prolongation, and also in the form of the fastening.

Continuing the excavation, a gigantic structure was found in the centre, at a depth of 14 metres. This is the later of the two hypogea already alluded to. Its vault had been partly demolished, at some time, in order to use its stones. The hypogeum consisted of a central chamber, of a long corridor and two side cells, one on each side of the corridor, near the entrance to the chamber. This chamber is a square, measuring 5 met., but it is covered by a hemispherical stone vault formed of horizontal encircling courses of slabs of Sasso-forte. The vault is circular down to its very base, and the transition to the square of the supporting walls was managed by pendentives in the four angles, also of Sassovivo slabs, which pass gradually from the square to the circular arrangement until they form a perfect drum, upon which the vault rests. The material of the walls, of fine Sassovivo stone, is in large slabs with a mean thickness of 20 cent. The door, in the northwest wall, is quite well preserved. It is 2.10 met. high and 0.90 met. wide. Cav. Falchi speaks of its "architrave," which he describes as probably "semicircular" in form. The corridor is 14 met. long and 1.10 met. wide, flanked with walls of large slabs of Sassovivo 1.75 met. high. It originally extended to the west side of the tumulus, and was covered by large slabs resting on the side walls. The two side cells are placed opposite each other, and are perfectly symmetrical, measuring 2.40 met. in height, 1.90 met. in width, and 3.10 met. in depth. They were covered with large slabs. The entire construction is 24 met. long.

The sepulchral chamber had evidently been more than once visited, at first by means of the corridor, then through the dome. The contents of the tomb, both in precious and common metals and in the coarse stone (Sassofetido and Sasso-fortino) were for this reason almost entirely obliterated. There must have been at least four statues of natural or more than natural size, almost or entirely nude, and apparently all female: they probably represented the figure of the deceased reclining on her back on a large slab. A number of fragments of these statues are published. Other fragmentary pieces of sculpture are: part of a capital having in relief an animal (lion) with open mouth and long curved tail; a slab with the rear part of a horse; a column (85 cent. high) with two affronted rampant lions in relief,

with eagle's heads, with open beaks and long upward curling tail. [These sculptures are of extreme interest, and remind both of Assyrian and of Phoenician monuments. We hope to notice these and the more recently-discovered sculptures in detail shortly.—ED.]. Other remains of monuments have been found, principally of funeral benches, of which there must have been at least four. They consist of four rude granite or Sassaftino colonnettes, with a pilaster added half-way up, to aid in supporting a large slab.

Nine years before, Cav. Falchi had penetrated into a chamber different from this one, in this mound, and at a lower level. He therefore dug below what appeared the natural level of the tumulus. He found that anciently there was here an open space which, with the exception of a beautifully finished pyramid of granite in the centre, had been filled in with horizontal courses of slabs. Thus at a depth of 11 met. he found himself at the bottom of a shell-shaped well of granite slabs. The solution of the enigma was that, beneath the upper chamber with walls of Sassovivo stone, there had originally existed another more beautiful chamber, whose walls had afterwards been lined irregularly by heavy slabs to sustain the weight of the second hypogaeum when it was built. We have explained on pp. 624-5 how this first chamber was built and how it was probably destroyed. As for its construction and arrangement, its walls consist of squared Sassofero blocks, so perfectly joined that their junction is hardly perceptible. These walls are 2.90 met. high, and are immediately beneath those of the upper chamber. The central pyramid consists of eleven square slabs of granite, which, starting at a base of 0.91 met., gradually diminish in size until they reach a section of 75 cent., at the total height of 2.90 met. The construction could not be more perfect.

More recent discoveries.—Dr. Halbherr adds the following more recent news :

"I must also mention that a still richer and more wonderful discovery than any of his preceding ones has now been made by Cav. Falchi in the tumulus called of the *Pietrera*, the burial mound which excited so much interest last year. About one-half of the tumulus has been so far explored; so that all the objects found cannot be as yet safely dated by means of their respective positions. All, however, that have been disinterred must be referred to the vii century b. c., that is to say, were at least coeval with the first formation of the tumulus itself. None of these objects has been found in the stone sepulchral chambers which form the real tomb, but in the earth brought to cover the tomb. The chief amongst these objects are a heap of *buccheri*, near the spot where the year before were discovered

the well-known necklace and bracelets of fringed gold ribbon; another collection of *buccheri* less than a yard distant; a hoard of precious objects; and a head of *pietra fetida* of natural size and in archaic style, forming part of a series of sculptures in this stone which are considered by Prof. Milani to be a real revelation in the history of Etruscan art. The *buccheri* all belong to the same type as those obtained in 1886 from the so-called *tomba del Duce*. They are of two kinds—some smooth and some with the wave ornament—and they consist for the most part of cups. One is decorated with zones of animals in embossed or stamped work, and many are covered with gold leaf of the usual stamped ornamentation, but of more difficult interpretation. Amongst the precious objects recovered must be numbered the fragments of two gold bracelets of exquisite workmanship, with pendent decorations representing human heads and figures in embossed gold leaf. This pair of bracelets, of the usual fringed gold band, exceeds all others obtained from the same necropolis in its marvellous delicacy, and in the peculiarity of its embossed characteristics. Next came a necklace of seventy hollow beads or berries of gold leaf, ribbed, with attached about thirty gold pendants in the form of small female busts adorned with breastplates, like those of the treasures of Palestina and Caere. There are also fragments of a silver box in embossed work adorned with griffins and other fantastic animals (the two rampant silver lions found near may have belonged to the lid), resembling in style and form those of the coffer found in the *tomba del Duce*; and fragments of one or two *armillae*, silver gilt, of a new type, with embossed human figures and flowers. All that I have described, with the rest of the treasure-trove, will be added to the other objects already in the Museum of Florence, while a full descriptive report of the whole will be published later on by Cav. Falchi in the *Notizie dei Lincei* at Rome."—*Athen.*, Aug. 5.

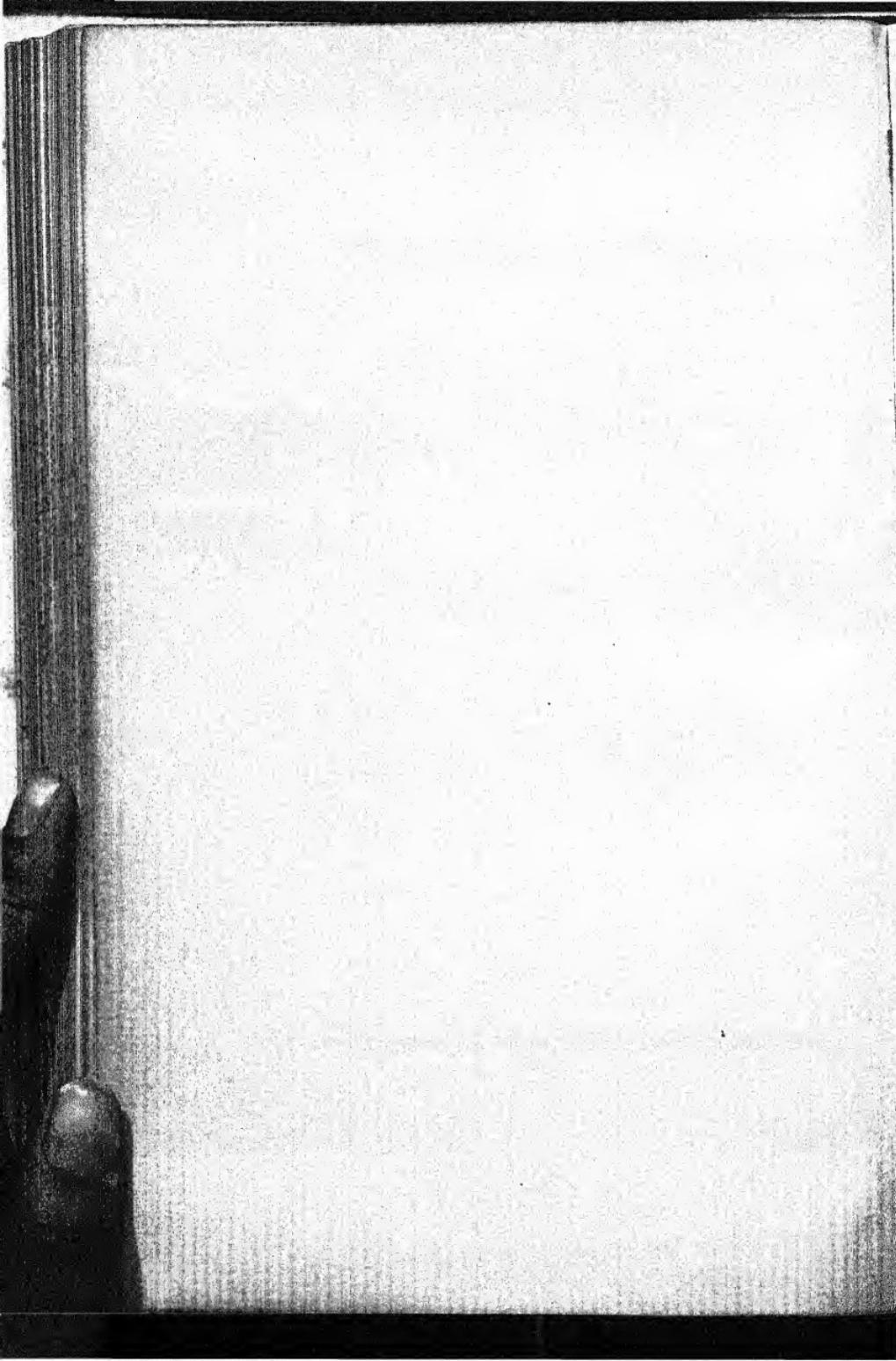
THE EXISTENCE OF TWO VETULONIAS.—Prof. Halbherr writes to the *Athenæum* of Aug. 5: "In my last letter I announced that Prof. Milani was engaged in determining the real site of Vetulonia, with a view to the settlement of a long debated question, and I am now able to give the result of his researches. For several years past Tuscan archæologists have been divided in opinion as to the site of the ancient city of Vetulonia, some placing it on the hill of Colonna di Buriano, in the commune of Castiglione della Pescaia, and others on the Poggio Castiglione, five miles distant from Massa Marittima, and as many from the Gulf of Follonica. This difference of opinion has been the occasion of a long controversy between Cavaliere Isidoro Falchi, who was for Colonna, and Prof. Dotto de' Dauli, who was for

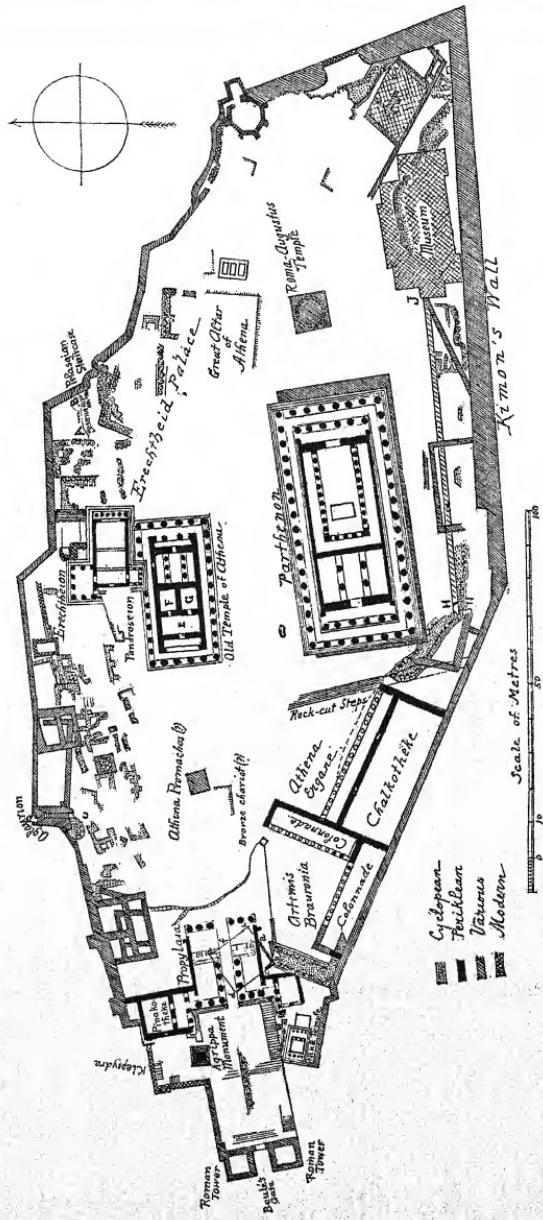
Castiglione. Strange to say, our latest discoveries prove the existence of two Vetulonias, one of more ancient foundation than the other, so that both sides must, in a certain manner, be deemed to be in the right. In fact, while the vast necropolis which lies round about the hill of Colonna, formed, as it is, almost exclusively of tombs of the archaic period, proves that the city to which it belonged—discovered during the excavations made by the Italian Government a few years ago—is undoubtedly the primitive settlement, dating from the tenth down to the sixth century B. C., the fresh works undertaken at Poggio Castiglione, under the direction of Prof. Milani, which took for point of departure the fragments of walling previously observed by Prof. Dotto de' Dauli, have brought to light another city, as also parts of a necropolis of a date posterior to the VI century, and continuing in use down to the II century B. C. After the identification of the circuit walls, it was an easy matter to find out the ancient roads of approach, and it was on following these roads that the remains of the new necropolis were soon revealed. The hill called Arnaino, to the east of Castiglione, and the other hills on the west looking towards the sea, and called Poggetti, are all literally covered with tombs *a cerchio* and tumuli marked out by stones of Alberese, exactly like those of the necropolis discovered by Cav. Falchi at Colonna. Two of these tumuli, measured at their base, were in diameter, the one 12.50 metres and the other 19. Another tumulus is of enormous dimensions, being about 100 metres in diameter. All these burials belong to the period between the second half of the VI and the V century B. C. The tombs belonging to the V and IV centuries B. C. were found cut out of the rock on the flanks of the hills in the valley called Riotto, half hidden by brushwood and thickets. It must be observed that tombs of a later period, formed of tiles and bricks, had already been found in the same neighborhood a few years ago by the peasants of the locality, so that now we have examples of burials extending from the latter portion of the VI down to the II century B. C. In a rifled tomb discovered in the beginning of Prof. Milani's researches a coin of Vetulonia was found placed with the body as Charon's obolus, and a coin of the city to which the deceased belonged was, when possible, used for this purpose. Other objects from the graves consist of fragments of vases of the III or II century B. C. The tomb itself lay amongst the ruins of an Etrurian building attributable to the V century B. C. Now the fact of the discovery of this coin, taken together with the documentary evidence, dating from the Middle Ages and going back to Roman times, collected by Prof. Dotto de' Dauli, indicates that the name of the newly-discovered city must have been Vetulonia.

"The reasons given for the nomenclature of this last city do not, however, invalidate the identification of the former city. Prof. Milani has therefore come to the conclusion that the ancient Vetulonians, towards the middle of the vi or the beginning of the v century b. c., when the burials at Colonna suddenly ceased, in order to defend their various commercial, mining and maritime interests, left their original home and formed a new settlement in a central position on the Gulf of Follonica, on the hill of Castiglione. The hill of Colonna, having on the other hand a good strategical position, was probably reoccupied about the iii century b. c. by the Romans with a *colonia*, whence its modern name Colonna."

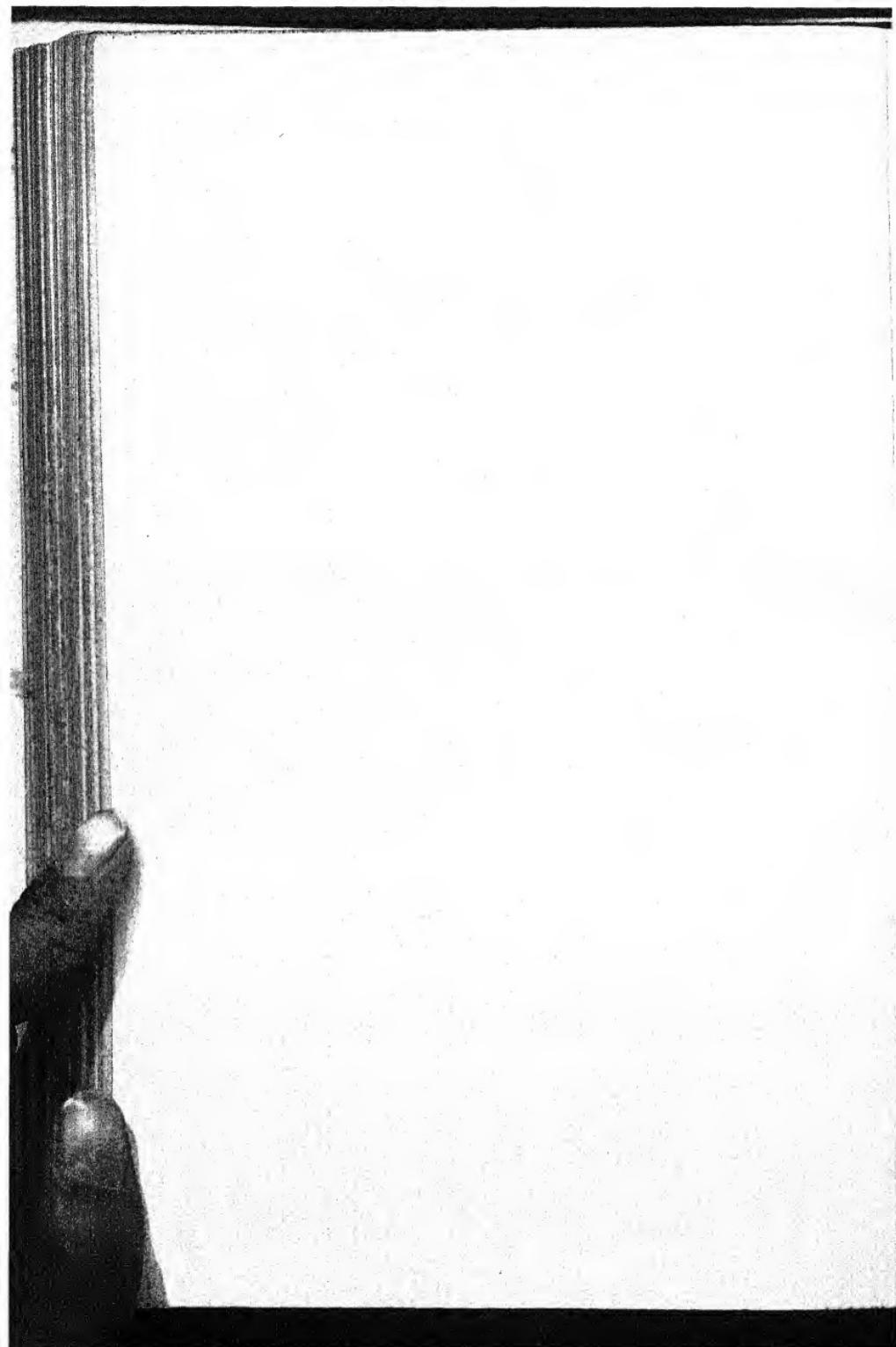
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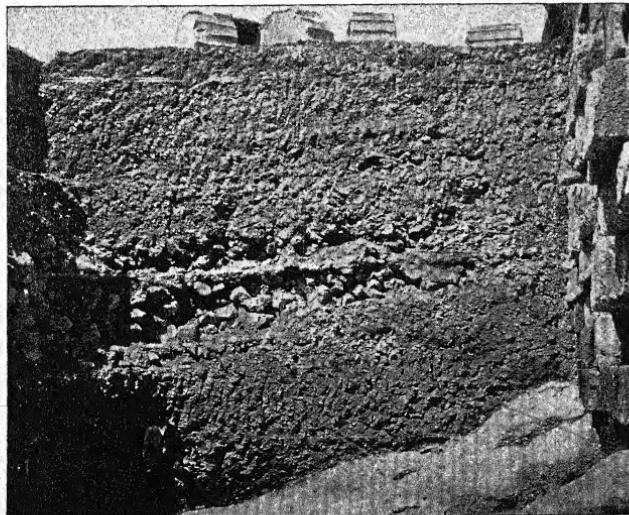
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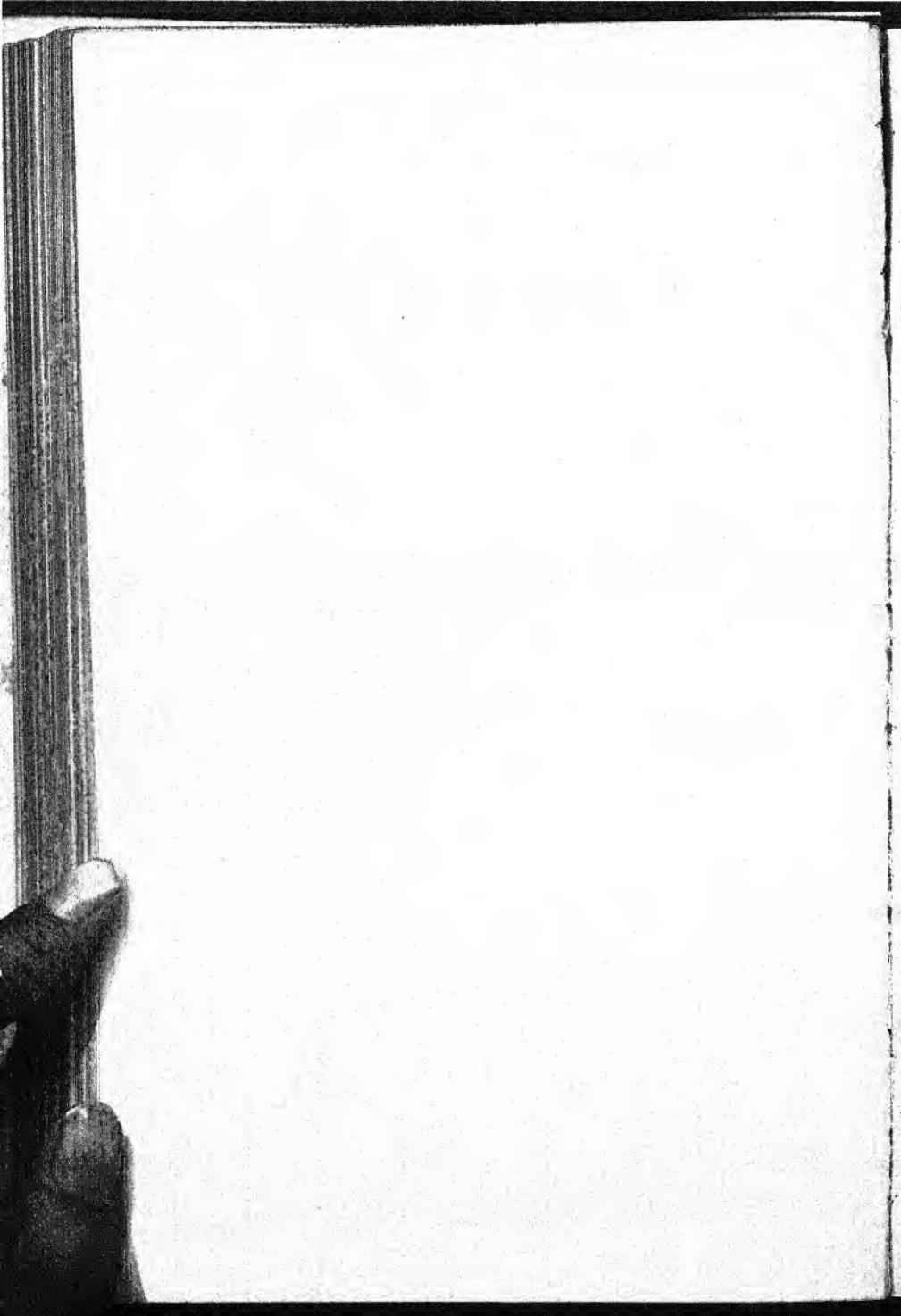


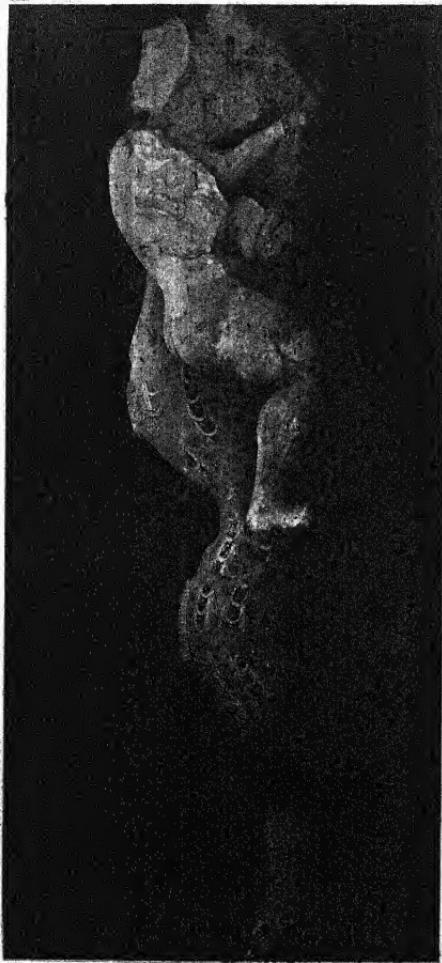
PLAN OF THE AKROPOLIS, ATHENS.



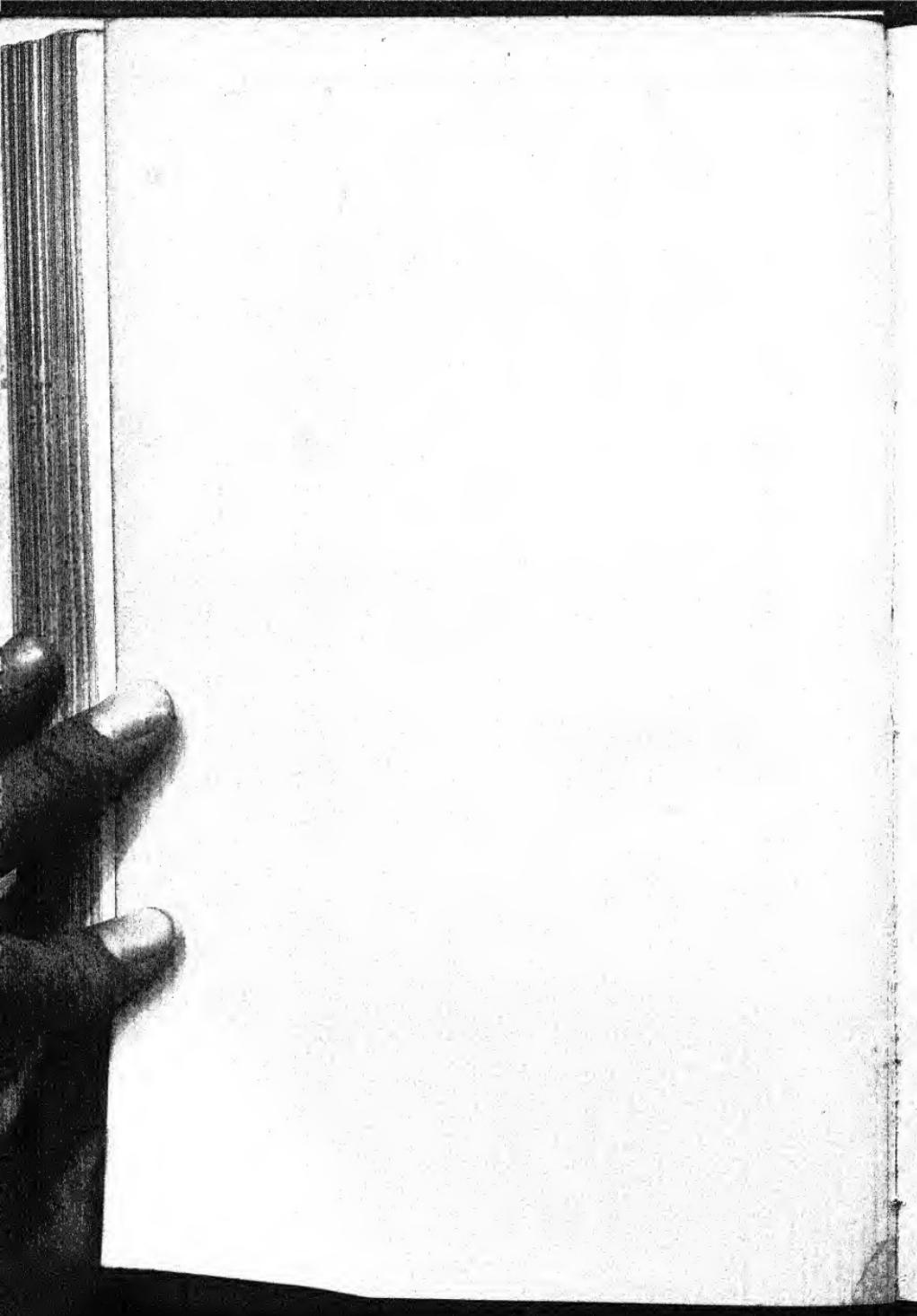


AKROPOLIS. EXCAVATIONS NEAR THE NORTH WALL.





STRUGGLE OF HERAKLES WITH THE OLD MAN OF THE SEA.





ATHENA FROM THE PEISISTRATIC GABLE.